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The Potential of Video Games for Exploring Deconstructionist History

Manuel Alejandro Cruz Martínez

Thesis submitted for the degree of Doctor of Philosophy

University of Sussex

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Declaration

I hereby declare that this thesis is the result of my own research. This thesis has not been and will not be submitted in whole or in part to another University for the award of any other degree.

Manuel Alejandro Cruz Martínez

Abstract

This thesis examines the potential of historical video games for exploring deconstructionist history. Historical video games have become one of the most popular and accessible forms of historical narratives in the 21st century, forming a key part of public engagement with history. This popularity has also placed these games under growing scrutiny, including calls for critically analysing their role in the construction and representation of historical narratives and epistemologies. For example, addressing topics like the emphasis on military history, the dominance of western perspectives and contexts, or teleological notions of progress. Such studies have become a central focus of historical video game studies, which has developed approaches for exploring how particular forms of historiographical representation and narrative arise and become embedded within historical video games.

This thesis develops a unique contribution to these debates by focusing on a deconstructionist approach to history. Defined by historian Alun Munslow (2007), the deconstructionist approach presents history as a constructed narrative and aims to identify discourses behind the process of writing history. In video games, the control that players have over the narrative experience can be described as unintentionally embedding a deconstructionist perspective. Expanding on this argument, this research addressed how formal aspects of the medium exert pressure over epistemology and how historiographical ideas can consciously be shared with players.

In contrast with previous approaches to the study of historical video games, this thesis goes beyond formal analysis of existing games, and includes design and reception perspectives. The arrangement of this study drew insights from several interdisciplinary fields, including the digital humanities, design and cultural studies. The result was a *research through design* methodology which engaged in the design, production, and evaluation of a historical video game prototype. Through the design process, the study set out to identify, implement, and test aspects of the medium that can emphasise a deconstructionist approach and allow players to reflect on their conceptualisation of history. This process involved multiple stages of data gathering and analysis.

The results show that perceptions of historical video games are marked by tensions between what is seen as historical and what is seen as fictional or ludic. This thesis proposes a framework to navigate through these tensions, and uses it to develop a video game prototype, *Time Historians*. The evaluation of this prototype shows that players recognised the deconstructionist approach and openly discussed historiography. The findings indicate the feasibility of intentionally embedding a deconstructionist historiographical approach by relying on core aspects of the medium and navigating through the discourses surrounding it.

The main contributions of the study include: a new approach for the analysis of historical video games; methodological reflections on the interdisciplinary combination of video game design and history; a set of epistemological guidelines for the design of historical video games; and new reflections on the role of video games as public history. Finally, this thesis expands on the discussions about historical video games and epistemology, offering a design-based perspective to approach this issue and unveiling further considerations on the potential of this medium.

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Chapter 1. Introduction

1.1 Background to the Study

This research began with a proposition: “*Instead of analysing video games, why do you not make one?*”. I was looking for the opportunity to pursue a doctoral degree, and I answered positively to this question with nervousness and excitement. Before such a call to action, my interest for academic research was focused on combining two topics: Historiography and video games. I feel personally attached to both of them. By engaging with video game design, I saw the opportunity to playfully experiment with them and offer a unique and useful contribution to knowledge.

Since that moment, the shape of this thesis has gone through many changes. Dealing with multiple disciplines implied making concessions at different stages. But despite this, the two core subjects, historiography and video games, have prevailed as the connecting tissue of the research, shaped by the infinite possibilities of design.

My attachment to historiography, or more specifically the philosophy of history, comes from my undergraduate experience with the discipline, and the encounter with a core, yet sometimes concealed, question: “*What is history?*”. Before entering university, I imagined history as a trip of discovery, and a search for origins and explanations. But these ideas changed upon learning about the underlying ontological and epistemological questions that root any historical narrative. My academic interests shifted with this new paradigm. Rather than thinking about what happened in the past, I grew concerned with how we engage with the past and how we talk about it.

Such interest motivated me to continue the academic career, pursuing degrees in education and cultural studies. And through those experiences I became aware of the presence that multiple approaches and discourses about the past and about history have in popular media. Beyond academia, historical narratives populate the cultural landscape of mass media, sharing, not only an interpretation of the past, but a way to conceive it, a way to approach it, and a definition of history. Rather than avoiding conversations with public history, I argue it is important to engage with it, understand it, and even attempt to

feed it, with the explicit aim of nurturing a wider and more critical conceptualisation of history among the general public.

On the other hand, video games have been a part of my life for as long as I can remember, and they even fuelled my interest in history since my childhood. Through these video games, I saw history as an intertwined and captivating tale, as a story book, as a literary piece that holds a special virtue: the essence of reality, the specs of truth. Much later, when I became intrigued by the discourses around history found in all kinds of media, video games also felt like a medium that I was confident and familiar with.

I finally decided to study historical video games after discovering the community of researchers that compose the field of historical game studies. This field is dedicated to study historical games in all their possible dimensions, as an interdisciplinary endeavour. As a master's student, I had the chance to join one of the first conferences around this topic, *Challenge the Past/Diversify the Future* at Gothenburg, Sweden, and met a group of people that directly and indirectly encouraged me to pursue this path.

Upon this encounter, I learned that the intersection between historiography and video games was central to the development of the field. In order to understand and justify historical video games as historical narratives, it is crucial to identify the ontological and epistemological connotations that they can convey and spur. In this sense, the aim that I pursue in this thesis of combining historiography and video games also answers to a need within this field of historical game studies.

While previous researchers have already considered such issues (Uricchio, 2005; Kee, 2011; Antley, 2012; Chapman, 2016a), there is a relevant contentious point regarding one epistemological approach to history: the postmodern or deconstructionist historiographical approach. Defined by historian Alun Munslow (2007, p. 18), the deconstructionist approach presents history as a constructed narrative and aims to identify discourses behind the process of writing history. Other historiographical approaches have been associated with concrete video game genres and aspects, but the deconstructionist approach has proved to be more complex to analyse.

It has been argued that deconstructionist ideas are incidentally emphasised by aspects embedded in the medium itself, like uncertainty, authoring, and multiplicity (Uricchio, 2005, p. 333; Gish, 2010, p. 168; Chapman, 2013c, p. 34,141,154; Salvati and Bullinger,

2013, p. 156; Copplestone, 2017, p. 419). All these aspects tend to refer to the same fact: that video games allow players to have a certain control over the narrative experience. This feature unintentionally induces an active engagement with history, that entails addressing history as a narrative that we write, rather than a given story that we passively consume or unveil. Because of this, deconstructionist ideas have been argued to be present in all historical video games (Chapman, 2013c, p. 250). But it should be noted that such unintended deconstruction usually ends up conflated with a mix of other historiographical ideas that encumber a clear epistemological approach (Uricchio, 2005, p. 335; Chapman, 2016a, p. 150).

In this regard, the argument that historical video games have a deconstructionist epistemology embedded needs to be reconsidered. This topic brings further questions about how the medium exerts pressure over the epistemology of the historical narrative, how developers' can intentionally foster different designs, and how historiographical ideas can consciously be feed in a public conceptualisation of history. In other words, studying how a deconstructionist historiographical approach relates to historical video games could potentially foster our general comprehension of how historical video games embrace historiographical approaches in general, and reinforce our definition of these as historical narratives.

Although I had a clear interest towards this field and this topic during my academic formation, I also had a major concern regarding my capacity to engage with it. I questioned myself about how it was possible to discuss about historical video games without knowing how such games are made. This prompted my interest towards video game design and programming, and led me to experiment crafting small prototypes in the past few years (Cruz Martínez, 2015, 2016; Cruz Martínez and Martínez Martínez, 2017). These experiments have changed my perception of the medium and have encouraged me to see the possibilities that video game design offers for scholarly purposes.

Games in general are crucial forms of expression within our society (McLuhan, 1994, p. 242). And video games in particular have become a widely accepted medium within popular culture. In the essence of play there are ideas and discourses involved and being exercised, indicating that any form of play has meaning (Huizinga, 1949, p. 4). In this sense, video game design is just another form of expression, similar to writing or painting.

It is another way of conveying ideas and could serve as well for creating historical narratives beyond what it was already done in the industry and in the academia.

This brings back those words that started this project: “*Why do you not make one?*”. I accepted this proposition from my supervisors knowing that video game design has much to offer, but also being open to finding new approaches and considering unique perspectives. The result of this is a research that touches upon three different perspectives: formal analysis, design, and also reception. For the most part, studies on the field of historical video games have focused on the formal analysis of these games. I am confident that, by integrating more perspectives, the approach of this thesis can contribute to the research on historical video games and historiography by providing new insights on the possibilities of the medium.

Finally, I contend video games are, not only a form of entertainment, but also a powerful and unique tool for sharing and creating ideas. The past decades have seen a shift in the focus of the video game industry towards a more diverse public and innovative concepts. New platforms such as mobile devices, media activism calling for diversity, and the increase of independent video game developers have allowed to consider a wider profile of video game consumers, including all ages, ethnicities, and genders.

In this context, historical video games that attempt to approach history from novel perspectives have become more frequent. This entails historical video games that: (1) deal with uncommon topics, like *Attentat 1942* (Charles University and Czech Academy of Sciences, 2017) or *This War of Mine* (11 bit studios, 2014) that approach war from the perspective of their victims, or *Herald* (Wispsfire, 2016) that openly addresses postcolonial cultural tensions; (2) include unconventional mechanics, like *Painters Guild* (Molina, 2015) which explores renaissance through guild managing; and (3) rely on non-entertainment framings, like the documentary video game *The Cat and The Coup* (Brinson and ValaNejad, 2011) or the scholarly game *Sailing with the Gods* (Blakely, 2016).

As the industry of video games grows in reach, investment, and influence, it becomes crucial to acknowledge how history is represented in this medium. Such representations will not only be vital in the conceptualisation of history for future generations, but they can also be a tool for developing critical approaches, allowing future players to engage

with a more complex understanding of the past. In this regard, I argue historical video game design is in dire need of new paradigms. New ways of engaging with history that can be achieved by embracing the philosophy of history. By combining theory and practice in this research, I also hope to contribute with this pursuit of innovative engagements with historical video game design.

To summarise, my motivation for this research comes from a personal interest in historiography and video games, and from the practical exploration of historical video game design to further analyse these topics. Ultimately, this thesis aims to be a contribution to the growing field of historical video game studies. As the field develops, more models and theoretical frameworks will be required in order to guide research and consolidate the acknowledgement of historical video games as another form of historical narrative. In this regard, the relation between historiography and historical video games is a crucial matter within the field, as it examines the ways in which historical video games refer to history and to the past. Studies that aim to delve in this subject are currently indispensable, whether they analyse, apply, and reconfigure existing frameworks, or propose new questions to work on.

1.2 Research Question

According to these motivations, and based on the existing literature, the main research question I proposed for this thesis is:

What is the potential of historical video games for exploring a deconstructionist historiographical approach?

This question prompted an original research that aims to identify, implement, and evaluate aspects of historical video games that can emphasise a deconstructionist approach and allow players to reflect on their conceptualisation of history.

The focus on deconstructionist history was motivated by previous discussions found in the literature. The deconstructionist approach presents history as a narrative that we construct, and focuses on scrutinizing the ideas behind the process of writing history (Munslow, 2007, p. 18). In historical video games, the control that players have over the narrative experience has led to think that there are certain deconstructionist ideas unintentionally embedded in the medium. Two key questions emerge from these

discussions: How do formal aspects of the medium exert pressure over the epistemology of the historical narrative? and how can developers consciously share historiographical ideas with players? These are the secondary questions to this research. By answering them, it is possible to define the potential of the medium for exploring deconstructionist history.

To answer these questions, this research approaches historical video games from three perspectives: (1) A formal perspective that looks at what the medium has to offer in order to embrace a deconstructionist approach; (2) a design perspective that considers the possibilities for engaging with this approach through video game design, and (3) a reception perspective that evaluates the possibilities for engaging with this approach through playing a video game.

This is done through a design-based methodology, that engages in the design, production, and evaluation of a historical video game prototype that can emphasise a deconstructionist approach and allow players to reflect on their conceptualisation of history. This required several phases of data gathering and analysis, guided by more specific questions.

A first phase implied understanding formal and reception aspects, about how people engage with historical video games, and what characteristics of these games could be used for exploring deconstruction. This was done by organising a series of design workshops with university students, where they shared their perception of historical video games and engaged in the design of their own titles. The analysis from participants' discussions in focus groups and play activities fed the initial arguments and design guidelines for the prototype.

Once working on the creation of the video game prototype, the main goal was applying the previous identified characteristics of the medium and understanding how a deconstructionist historiographical approach could inform the design of a historical video game. Several prototypes were created, leading to the production of a final one, named *Time Historians* (Cruz Martínez, 2019). Design documents and prototypes constitute the main data for this phase, that was analysed to identify key guidelines for engaging with historical video games and historiography.

A final phase consisted of evaluating the video game prototype and analysing how people engaged with a historical video game that explores a deconstructionist historiographical

approach. This was done through several evaluations with university students and lecturers. Focus groups, surveys, and play activities were used to gather data to analyse how the prototype was perceived and if the deconstructionist approach was identified or if it generated historiographical debates.

Through all the process, formal, design, and reception aspects are equally considered, and each of these perspectives supported each other. On the one hand, the design perspective proposes a dialogue between video game design and deconstructionist history, considering the relations between theory and practice, between the formal elements involved in video games and the theoretical arguments within a historiographical approach. On the other hand, the reception approach supports the formal analysis and the design process by providing concepts and ideas for the design experiments, and by allowing to playtest and evaluate the outcomes of such experiments. It also allows to base the design on people's thoughts and feedback, enriching the experience and allowing to understand the potential of the medium in terms of both, format and public engagement.

1.3 Outline of Thesis

In this chapter, I offered an introduction to the thesis, detailing motivations and research questions. In chapter 2, I present a review of the literature relevant to this research, situated within the field of historical video game studies. In chapter 3, I describe the methodological approach of this research, detailing the data gathering process and its analysis. In chapter 4 and chapter 5, I analyse the data from a series of design workshops, looking at participants' perceptions of historical video games first, and at their engagement with historical video game design later. In chapter 6, I describe and analyse the design process of a historical video game prototype, *Time Historians*, that was informed by, and aimed towards, exploring a deconstructionist historiographical approach. In chapter 7, I analyse the reception and evaluation of this prototype, looking at how participants engaged with it and what ideas about history it prompted. In chapter 8, I summarise the findings of this research, outlining the main arguments about the potential of the medium for exploring deconstructionist history. Chapter 9, contains the bibliography referenced in the thesis, and chapter 10 presents, as appendices, relevant documentation produced throughout the research.

Chapter 2. Literature Review

2.1 Chapter Overview

In the previous chapter, I presented my aims and objectives for this thesis. In this chapter I further rationalise the selection of the research questions by situating them within a previous research tradition. The objective of this chapter is to offer a concise review of the relevant literature used and applied throughout this research. Doing so, I expect to map the academic background supporting this study and to highlight its relevance, presenting core definitions and bringing forth key debates regarding video games, historiography, deconstruction, and public history.

To do so, in the following pages I focus on: first, exploring the concept of video game and describing historical video games as the object of study for this thesis, as well as situating this research within the fields of video game studies and historical video game studies (2.2); then, introducing the relationship between historical video games and historiography as the main topic to analyse, arguing the need to engage particularly with deconstructionist history (2.3); and finally, I address the idea of historical video games as sites of public historical engagement to substantiate the pertinence of this research (2.4). The literature and debates stated in this chapter are referenced throughout the rest of the thesis.

2.2 Video Games

2.2.a Definitions and Approaches

Video games have been around for over half a century, since their first appearance in the 1960s (Bristow, 1977, p. 58). They have become part of our cultural landscape with over 2.5 billion video game players in 2016 and an industry that generated 78.6 billion dollars in 2017 (2019 Video Game Industry Statistics, Trends & Data, 2019). They are, by now, a recognisable cultural object.

Aiming to address such an object, the field of video game studies emerged in the late 1990s, initially exploring the intersection between narrative and computer technology in terms of ‘cybertexts’ and ‘cyberspace’ (Aarseth, 1997; Murray, 1997; Ryan, 1999). It has

been influenced by previous research on games and play (Huizinga, 1949; Giddens, 1964; Herbert Mead, 1982; Caillois, 2001; Sutton-Smith, 2001), and on media (Goffman, 1986; McLuhan, 1994; Manovich, 2002). Despite this, video games continuously avoid being locked under a concrete definition (Tavinor, 2008). Video games are difficult to analyse due to their multimodality: they rely on visual, aural, and even haptic representations to convey a narrative structured in storytelling devices and rulesets. Because of these multiple modes, researchers have approached video games from several perspectives, looking at them as games (Frasca, 1999; Juul, 2001; Aarseth *et al.*, 2011; Linderoth, 2013), as a form of text (Murray, 1997; Ryan, 2001; Fernández Vara, 2015), or as fiction (Planells de la Maza, 2017).

There are many ways to define video games, and our commitment to one definition needs to be subjective and flexible. I reflect that definitional debates can be fruitless when aimed towards proposing a categorical definition, but relevant when used to reconsider our perception of video games and offer multiple perspectives to engage with it (Linderoth, 2015, p. 292). During this research, I navigated through different definitions of video games, and ultimately, I found that approaching video games as either games, texts, or fiction was insufficient for exploring the medium.

Thus, for this research, I decided to define video games as a distinctive ‘medium’ (Wolf, 2001, p. 13; Günzel, 2012, p. 32). The definition of a medium is contested (Ryan, Emerson and Robertson, 2014, p. 334), but I am referring to it as something that mediates between both ends in a conversation (Bruhn, 2016, p. 17). Video games can be conceived as a medium because they entail distinguishable ‘materiality’, ‘mediality’, and ‘cultural acceptance’ (Ryan, 2006, p. 18). For one, video games are technically related to the development of computation, which indicates a specific materiality as a type of software, one that depends on algorithmic structures, visual interfaces, and input devices (Wolf, 2001, p. 14; Galloway, 2006, p. 1). Second, they have a unique form to mediate content (Wolf, 2001, p. 32; Günzel, 2012, p. 32) that has been broadly discussed within video game studies using different terms like ‘engagement’ (Tavinor, 2008), ‘interactivity’ (Manovich, 2002, p. 59; Lopes, 2010, p. 36), or ‘procedurality’ (Murray, 1997, p. 75; Bogost, 2007, pp. 28–29). And third, it is addressed and perceived as a distinctive cultural product by the general public (Ruffino, 2012, p. 123; Aarseth and Calleja, 2015, p. 8). I

argue that video games can be addressed as a medium on their own because they satisfy these three conditions.

More importantly, this definition of video games as a medium allows to differentiate them from other forms of games and audio-visual mediums while still recognising their influence (Wolf, 2001, pp. 14–17). This means, it is possible to tackle video games' mediality, that is, the way they mediate content, on their own terms. Not as something derived or related to other mediums, but as a result of video games' own complexity.

I phrase video games' mediality in terms of how they approach their own interactivity. For many, interactivity is a convoluted term usually avoided in video game studies (Aarseth, 1997, p. 48; Galloway, 2006, p. 128). The main issue is that interactivity can cover many things when defined broadly (Lopes, 2010, p. 36). Interactivity can be seen as a form of communication that accentuates the implications of multiple participants in creating a message and giving it meaning. If we consider that the reader is at least of equal standing with the author in terms of creating meaning, then we need to embrace the fact that all mediums, from movies to novels, from video games to paintings, are interactive: they require or imply a communication between two participants in which both intervene to create meaning.

This wider definition of interactivity is supported by certain paradigms in both art and humanities. In art, Marcel Duchamp's statement that "the spectator makes the picture" (Paz, 1978, p. 85), and in humanities, Roland Barthes' argument on *The death of the author* (Leitch, 2001, p. 1466). Both imply a single notion: that the message lies beyond the text, and it is not a product of a single author, but it is constructed by the audience.

Within such paradigm, defining video games as interactive is redundant. However, David Rokeby (1995) notes that, what makes so called "interactive artworks" is not that they are interactive, which can be presumed to any other form of art, but that they address the interactions that they are meant to prompt as a medium. So called "interactive artworks" are systematically acknowledging and exploring their own capacity to create a message, their form is that of revealing, twisting, and playing with their own formal structures in such a way that meaning can always be recognised as partially constructed by the audience. For Rokeby "the artists creating them have taken literally McLuhan's oft-repeated dictum, 'The medium Is the message'" (Rokeby, 1995, p. 133).

Based on this, I argue that the form in which content is mediated in video games, or in other words, its mediality, is based on systematically acknowledging and engaging with the interactions that it can prompt. Video games systematically address the player's possible interactions with the medium, recognising their own role as mediator of content. This is why the relation between video games and interactivity seems obvious and distinctive, not because video games are more interactive than other mediums, but because there is a self-awareness of such interactivity and a conscious attempt to tap into it and explore it.

On this regard, I recognise that this acknowledgement and engagement with interactivity can be done, and has been done, in other mediums. It can be argued that comics like *Maus* (Spiegelman, 1991), movies like *Pierrot le Fou* (Godard, 1965), even paintings like Diego Velázquez's *Las Meninas* (Velázquez, 1656), break the fourth wall and address their readers and viewers directly, guiding their engagement. However, in all these situations, addressing interactivity is nothing but an aesthetic choice. For video games, addressing their interactivity is mandatory.

Eric Zimmerman (2004, p. 158) refers to this as 'explicit interactivity' and connects it with all forms of games, as they all rely on offering players possible interactions. But I suggest that in the case of video games this explicit interactivity can be more complex, because it permeates through the multimodality of the medium and translates to other forms of representation. Especially storytelling structures and audio-visual narratives, that do not need to directly address their audiences, are forced to this acknowledgement. I suggest this is what makes video games unique and interesting to analyse: a multimodal acknowledgment of, and engagement with, its own interactivity that allows to reflect on the process of meaning creation across different forms of representation.

To summarise, in this thesis I address video games as a medium that entails a unique materiality, mediality, and cultural acceptance. Its unique mediality, or form to mediate content, is based on acknowledging and engaging, through multiple modes, with its own interactivity. This trait, while partially inherited from games and play, takes a particular form in video games due to the multimodality of the medium. With this trait at its core, video games differ from other mediums that acknowledge and engage with interactions as an aesthetic choice.

2.2.b Historical Video Games

Within the video game industry, history has been used as a common inspiration and motif. I refer to historical video games as those video games that include representations of, and concepts from, history. From the text-adventure *Hamurabi* (Dyment, 1968) to recent franchises with long-running entries such as *Assassin's Creed* (Ubisoft Montreal, 2007), historical video games have been popular among video game consumers and developers as proved by over 2000 different titles (*Historical Games - IGDB, 2019*).

Consequently, it is no surprise to find an increasing academic interest in researching these video games. Situated between video game studies and history, the field of historical video game studies is committed to researching: “games that in some way represent the past, relate to discussions about it, or stimulate practices related to history” (Chapman, Foka and Westin, 2016, p. 10)¹. Historical video game research focuses, not only on the video game as object of study, but also everything that surrounds it: the players/consumers; its production, use, and reception; or even the formal and material characteristics of the medium.

There are precedent studies at least since the 1970s looking at the educational use of historical games in general (McCarthy, 1973; Birt and Nichol, 1975; Gould and Bysshe, 1975; Campion, 1977; Bigelow, 1980) and since the 1980s looking specifically at historical video games (Hart, 1985; Sargent, 1985; Schick, 1985; Slatta, 1985; Garfield, 1987; Sargent and Hueston, 1987; Werkman, 1987). However, since 2005 historical video game studies have moved beyond the educational purposes of the medium, aiming towards discussing historical video games as cultural manifestations on their own terms (Uricchio, 2005; Chapman, Foka and Westin, 2016). This implied a turn towards cultural studies that can also be found, around the same time, in the study of historical films (Rosenstone, 1995, 2012).

As a result, historical video game studies can be seen as an interdisciplinary field that approaches historical video games as historical narratives from multiple angles. It is hard

¹ The field is usually labelled as *historical game studies* to include all types of historical games. However, throughout this research I have come to believe that it is important to make a distinction between games and video games, as I stated in the previous section. I have tried to be concise with this distinction, referring only to research done regarding historical video games and emphasising the differences with other forms of games.

to even delimitate the contributions to this field due to the range and mix of multiple approaches. Some studies have analysed content, themes, and representation in existing historical video games. This includes engaging with representations of specific historical periods (Apperley, 2006; Lowe, 2009; Jiménez Alcázar, 2011; Chapman, 2016b) or analysing concrete video game franchises and titles (Dow, 2013; Mir and Owens, 2013; Sloan, 2015; Shaw, 2016; Koski, 2017). Others have focused on the contexts surrounding consumption, production, and perception of historical video games. This includes communities creating historical narratives about video games (Webber, 2017), their ethical implications (Dennis, 2016), teaching and learning about history (Squire, 2004; Fullerton, 2008a; Zagal and Bruckman, 2008; Matei, 2015; McCall, 2016), or the relationship between video games and cultural heritage (de Groot, 2009; Champion, 2014, 2015; Mol *et al.*, 2017). Additionally, archaeologists like Andrew Reinhart (2015) have also applied archaeological methods for the analysis and study of video games, under the concept of “archaeogaming”. Moreover, these approaches can be combined, as for example, Chris Kempshall (2015) includes both, players’ reception and interviews with video game developers, in his analysis of first world war video games. Thus, the wide range of approaches within the field can make it hard to navigate.

By contrast, this thesis approaches historical video games primarily from a design perspective that aims to push the boundaries of the medium by mixing theory with design practice, asking what kind of historical narratives are possible in video games. While sparse, design-based research has always been related with historical video games. Early titles like *Hamurabi* (Dyment, 1968) or *The Oregon Trail* (Rawitsch, Heinemann and Dillenberger, 1974) started as research projects for history teaching. It should be noted as well, that design-based research usually entails engaging with formal analysis and reception of video games, as both aspects are crucial in the design process and the evaluation of this approach.

In the past few years numerous projects have revitalised this approach. For example, *Sailing with the Gods* (Blakely, 2016) is a video game created with primary historical sources and oriented to develop an understanding of navigation in ancient Greece by gathering data from players’ decisions within the game (Blakely, 2018, p. 136). Historian Kevin Kee (Kee *et al.*, 2009; Kee, 2011) has theorised about the use of video games to create historical narratives and has also been involved in the design of historical video

games like *Outbreak* (Kee and Bachynski, 2009) focused on Montreal's 1885 smallpox epidemic. The video game *OFabulis* (Lelièvre, 2016), created to promote historical monuments in France, digs into the usage of this medium for heritage. The project "auralisation of archaeological spaces" at the Humboldt University of Berlin (Zentralinstitut der Humboldt-Universität zu Berlin, 2018) has used a virtual recreation of the Roman and Athenian forums in the game engine Unity (Unity Technologies, 2005) to envision the use of such spaces in antiquity and do aural experiments.

Recently, historical text adventure video games have been particularly popular thanks to the accessibility of the game engine *Twine* (Klimas, 2009). Historians have made games like *The Melian Dilemma* (Morley, 2019a, 2019b) adapting Thucydides political dialogue; *Destory History* (Coyne, 2017a, 2017b) experimenting with the social relevance of history; or *Path of Honors* (McCall, 2017, 2018) simulating a political career in the Roman Republic.

Another related project is the *Jomini Engine* (Bond, 2015; Loidl and Louchart, 2016), a game engine made specifically for creating historical multi-player online role-playing games (MMORPG) for educational purposes. Also, the *TravellerSim* project (Graham and Steiner, 2007) and similar studies using agent-based modelling (Graham, 2006; Wilkinson *et al.*, 2007; Roman, 2013; Rubio-Campillo, Cela and Cardona, 2013; Gavin, 2014; Wurzer, Kowarik and Reschreiter, 2015), while not strictly video games, do imply using aspects derived from video games, like simulations and uncertainty, for historical research.

All these experiments are in line with the emergent concept of scholarly video games (Clyde, Hopkins and Wilkinson, 2012, p. 14; Spring, 2014, p. 218; Carvalho, 2017, p. 819), which entails the idea of using, designing, and creating video games as a means for doing and sharing academic research. This is an emergent approach for historical video game studies, and while its role and potential is yet to be defined (McCall, 2012, p. 21; Carvalho, 2017, p. 810; Houghton, 2018, p. 41), I contend that scholarly video games could prompt further insights about the medium and its possibilities by combining practice and theory.

2.3 Historical Video Game as Deconstructionist History

2.3.a Historiography and Historical Video Games

Within the field of historical video game studies, the topic of historiography has a particular relevance. By ‘historiography’ I refer in this thesis to the multiple approaches towards defining and engaging with history (Bentley, 2006, p. xi; Munslow, 2006, p. 144). These approaches embed ontological claims, that refer to the existence and nature of historical knowledge (Munslow, 2006, p. 195); as well as epistemological claims, that allude to how we engage with such historical knowledge (Munslow, 2006, p. 94). In this sense, all historical narratives entail particular historiographical approaches, as they all refer to history and the past in specific terms.

Studies regarding historiography and video games have tackled many topics. For example: Jeremy Antley (2012) has explored the epistemological implications behind historical video games in contrast with traditional textual devices; Souvik Mukherjee (2016) has identified the postcolonial trail in existing historical video games; Rebecca Mir and Trevor Owens (2012, 2013) have analysed historical video games through the postcolonial lens; and Tuur Ghys (2012) has analysed features of historical video games that portray historical determinism.

There are two different categorisation of historiographical approaches that have been used in historical video game studies. The first one comes from Peter Seixas (2000, p. 21) and it is particularly focused on the teaching of history, distinguishing between three epistemological options: ‘the best possible story’, which presents history as a single linear narrative; ‘disciplinary history’, which recognises competing accounts of the pasts and offers opportunities to evaluate them; and ‘postmodern history’, that emphasises historian’s role, the process of crafting a historical narrative, and the subjectivity behind it. Similar to this classification, but oriented towards historical practice in general, is Alun Munslow’s (1997, p. 20, 2012, p. 69) differentiation between three epistemic genres: ‘reconstructionist’, concerned with the objective representation of the past; ‘constructionist’, concerned with the interpretation of the past through theory; and ‘deconstructionist’, concerned with how history itself is written (Munslow, 2006, pp. 66, 80, 216, 2012, pp. 69–72; Chapman, 2016a, p. 60).

As it can be seen, both approaches are similar to each other, as they make the same type of distinctions. For this thesis, I decided to rely on Alun Munslow's classification, mainly because it offers a more complete approach to discuss historiography within historical video games (see Figure 1). This classification is also well known and received within the field of historical video game studies (Clyde, Hopkins and Wilkinson, 2012, p. 7; Chapman, 2016a, p. 60; Copplestone, 2017, p. 416).

<i>Historiographical approach</i>	Reconstructionist Approach	Constructionist Approach	Deconstructionist Approach
<i>Definition of history (ontology)</i>	Representation of the past	Interpretation of the past	Narrative about the past
<i>Approach to history (epistemology)</i>	Correlation: History = Past	Interpretation: History = Theory (Past)	Subordination: Past = History
	<i>Possibility to represent the past accurately directly from historical sources</i>	<i>Possibility to interpret the past using variable theoretical frameworks</i>	<i>Possibility to conceive the past is limited to the existence of a historical narrative</i>

Figure 1 - Interpretation of Munslow's (1997) historiographical approaches.

Understanding the presence of these historiographical approaches within historical video games has been a core issue, because the considerations of historical video games as historical narratives rely on our capacity to define how such narratives can convey ideas about history and the past. Currently, three different frameworks for relating historiography to historical videogames have been proposed. I have relied on them as guidance for identifying key issues regarding this topic and engaged critically with the relationship they propose. In the next lines I present a brief summary of each one of them.

The first framework was proposed by William Uricchio (2005, p. 328) who noticed a difference between historical video games that aim to represent the past ('historical representations') from those that aim to simulate the past ('historical simulations'). Both types of video games are attached to historiography in different ways. Historical representations deal with specific events, paying attention to the accurate detailing, and shaping the gameplay, or game experience, with these settings. By contrast, historical

simulations deal with abstract historical processes while allowing for speculative engagement, building upon theories of long-term historical development.

The second framework was proposed by Kevin Kee (2011), who has made a similar attempt to connect historical video games and epistemology (see Figure 2). Relying on Peter Seixas' (2000) epistemological classification, on Roger Caillois' (2001) classification of games, and on Tzvetan Todorov's (1971) narrative typology, Kee proposed an association between video game genres and epistemological aims (Kee, 2011, p. 433). He distinguished between three genres:

- (1) Action video games that portray history as 'the best possible story', because:
 - (a) they present a 'mythological narrative form', a linear narrative that moves from one point to another; and
 - (b) they correspond to a 'ludus' game structure, with players having to fulfil goals to reach a desired outcome.
- (2) Simulation video games portraying "disciplinary history", because: (a) they present an 'ideological narrative form', that includes multiple variations of a single situation; and (b) they correspond to a combination of 'ludus' and 'paidia' game structures, organised around goals but integrating freedom to decide on how to reach them.
- (3) Adventure video games portraying "postmodern history", because: (a) they present 'gnoseological narratives', a movement from ignorance to knowing that can be retrospective and open-ended; and (b) they correspond to 'paidia' game structures, playful structures without pre-established goals.

<i>Game genre</i>	Historical epistemology (Seixas)	Narrative form (Todorov)	Game structure (Caillois)
<i>Action</i>	Best Possible Story	Mythological	Ludus
<i>Simulation</i>	Disciplinary History	Ideological	Ludus-Paidia
<i>Adventure</i>	Postmodern History	Gnoseological	Paidia

Figure 2 - Three options of history games for learning. Kevin Kee (2011, p. 433).

Finally, a third framework was suggested by Adam Chapman (2016a, p. 60), who further expanded these attempts by using Munslow's historiographical classification (see Figure 1). He stated that Munslow's 'reconstructionist approach' to history corresponds to historical video games that attempt to represent the past as it was, taking a close-up perspective focused on individual subjects (Chapman, 2016a, p. 66), a distinctive characteristic of action, adventure, and shooter video game genres. On the other hand, Munslow's 'constructionist approach' to history could relate to historical video games that simulate the past introducing abstract concepts such as commerce, diplomacy, or religion, which take a more symbolic approach to interact with the world, using maps, tokens, or graphs, (Chapman, 2016a, p. 70) associated with strategy, managing, and simulation video game genres. In his research, Chapman noted the more intricate formal structures behind historical games, pointing at how different elements, such as narrative, time, perspective, and scale, showed multiple ways of engaging with historiographical approaches (Chapman, 2016a, p. 20). Because of this, he argues that historical video games could compel several approaches to history at the same time (Chapman, 2016a, p. 150), complicating the historiographical analysis of this medium.

Relation with historical video games' forms	Historiographical approach		
	Reconstructionist Approach	Constructionist Approach	Deconstructionist Approach
<i>Uricchio (2005)</i>	Historical Representations	Historical Simulations	---
<i>Kee (2011)</i>	Action Games	Simulation Games	Adventure Games
<i>Chapman (2016)</i>	Realist simulation	Conceptual simulation	---

Figure 3 - Historiography and historical video games: Uricchio (2005), Kee (2011), and Chapman (2016).

It should be noted that there are other approaches for defining and classifying games, that these previous frameworks have not relied on. For example, Jesper Juul (2005, pp. 5, 71-72) proposes a differentiation between emergence games, whose challenge lies on combining simple rules, and progression games, that present serialized challenges in a linear way. Looking at definitions of games that are more design oriented could also highlight aspects that these current frameworks do not take into account, such as player

motivation, and how the balance between internally and externally seeking pleasure or avoiding pain can also configure the reading of the game (Schell, 2015, pp. 152-153). However, while Juul criticizes Caillois' (and Johan Huizinga's) inclusion of free-play in his categorisation of game (Juul, 2005, p. 10), the difference between emergence and progression proposed by Juul goes in a similar direction to Caillois' ludus and paidia: for both authors the struggle is between players having more or less freedom during play. And it is this tension that is addressed by Urrichio, Kee, and Chapman in their classifications of epistemology in historical video games.

Overall, within the frameworks proposed by Urrichio, Kee, and Chapman (see Figure 3) there is one historiographical approach whose analysis and comprehension has proved to be more complex than others: the deconstructionist approach. This research directly follows these arguments about historiography and historical video games and focuses on this particular historiographical approach.

2.3.b Deconstructionist History

The term deconstruction was coined by Jacques Derrida as an open and abstract concept that invites reflection on the meaning of ideas (Derrida, 1985), but has frequently been used since to define a postmodern research methodology or approach to knowledge. Several historians have proposed different definitions and interpretations of the term deconstruction. For example, Simon Gunn (2006, p. 17) refers to deconstruction as "a strategy of reading that searches the margins and silences of texts for their significant blind spots and absences". On the other hand, Dominick LaCapra (2000, p. 42) states that deconstruction implies the analysis of the forces within a text that situate the explicit objectives of the authors. Similarly, Keith Jenkins (2005, p. 28) claims that deconstruction is an "empty mechanism", but one that focuses on constantly interrogating authority and as a consequence it "undercuts any idea that we can get anything like true or objective history" (Jenkins, 2005, p. 38). Finally, a more concise definition proposed by Alun Munslow (2006, p. 80) refers to deconstruction as "the interrogation of those discourses through which human beings attempt to engage with the real world", and its main objective is to "establish how such discourses, like the discourse of history, can achieve or fail to achieve the objective of truthful knowing". In summary, these definitions point towards an understanding of deconstruction as an approach to knowledge that interrogates the underlying discourses in a text and questions the possibility of objective conclusions.

Such approach can be relevant for historians, as it allows to question our own discipline and the belief of language as an accurate, objective, and truthful tool to interpret the past (Munslow, 2006, p. 81).

Beyond the original meaning of the term deconstruction, in this research I refer specifically to the idea of a deconstructionist historiographical approach. Munslow defines “deconstructionist history” as an ontological and epistemological approach to history that “treats the past as a text to be examined for its possibilities of meaning” and whose main objective is to challenge the false idea of objectivity and the implied moral detachment that is frequent in other historiographical approaches (Munslow, 1997, p. 18). This deconstructionist approach can be better appreciated by looking at the whole historiographical framework proposed by Munslow, as an approach that contrasts directly with the others in its unique way to understand what history is and how we approach history and the past (see Figure 1). In this regard, Munslow states that deconstructionist historians define history as an invention, as a tool through which it is possible to “do things with the past” (Munslow, 2007, p. 18), and their approach to history focuses on unveiling how history is created and on all the aspects that surround historians and their work (Munslow, 2006, p. 80). Finally, while presented as a single historiographical approach, Munslow’s deconstructionist history actually comprises multiple schools of thought related to postmodernism, such as postcolonialism, third-wave feminism, and queer theory, and it can also be associated with what Seixas (2000, p. 27) describes as a “postmodern” approach to teaching history.

Historians that have engaged with a deconstructionist historiographical approach include Michel Foucault, Hayden White, Frank R. Ankersmit, Richard Rorty, Keith Jenkins, and Alun Munslow himself (Munslow, 2006, p. 80). But it should also be noted that this is not the only approach to history nor the most frequent. Many historians, like Sir Geoffrey Elton (1967), Keith Windschuttle (1995), Jack Hexter (1998), Gertrude Himmelfarb (1994), Arthur Marwick (1995, 2001), Peter Mandler (2004), and Martin Bunzl (1997), have remained wary of the cultural turn from which postmodernism derived, claiming its limited influence. Richard Evans (Evans, 2002, p. 15), one of the most well-known critics of postmodernism, has defended this idea of postmodernism as a minor approach, arguing that the main take from the postmodernist experience, particularly from Hayden White, is the adoption of a strong authorial identity.

Perhaps a middle-ground approach can be found in Simon Gunn (2006). While staying away from any positionality as a postmodernist historian, Gunn analyses history in the light of the cultural turn: what it has meant to the discipline, and what it has to offer. For him, despite the heated debate, the cultural turn has barely touched the discipline. On a general scale, it has had a minimal reverberance, both in research and in classrooms. But as its role in other disciplines has been so remarkable, it will not be wise to ignore it. Instead, he argues that, to a lesser and slower degree, it will continue to shape the future of the discipline (Gunn, 2006, p. 225).

To summarise, a deconstructionist approach entails at least four core ideas. First, that history and the past are two differentiated concepts. “‘the past’ can be defined as what once was but is no more, whereas ‘history’ exists in the category of a narrative that we construct about ‘the past’” (Munslow, 2012, p. 7). This differentiation is important, as reconstructionist and constructionist approaches assume a further connection between both concepts, either thinking about history as a direct representation of the past, or as a feasible interpretation of it. Deconstructionist history assumes that history, as a narrative about the past, is a separate entity that cannot expect to comprise it. This connects with the second core idea, that history is a narrative that we create in the present. It is not something that is found or revealed, it is intentionally crafted to address the past. Third, by assuming history as a narrative, the study of history should pay attention to the ‘form’ over the ‘content’. That is, to the structural design of the historical text, over the events and processes that it references (Munslow, 2006, p. 113). This is because the formal aspects of the historical narratives are considered key for embedding the content with a certain significance or meaning, and without such structure content would not have the same value. Finally, and in relation to this, deconstructionist history is also concerned with identifying the assumptions, preconceptions, or discourses behind the process of writing history. That is, what goes behind the subjective acknowledged and unacknowledged inclusion, omission, and treatment of information (Munslow, 2006, p. 85). These core ideas informed the definition of deconstructionist history embraced in this research.

2.3.c Deconstructionist History in Historical Video Games

As mentioned before, Kee (2011, p. 435) has suggested that the genre of adventure video games could entail a deconstructionist historiographical approach. By adventure games

he referred to those where players have a freedom of exploration with the aim of creating a certain form of knowledge. To illustrate this definition, Kee (2011, p. 436) proposed a video game where players have a data set and can create a cultural product with it, immersed within a community of players. A set of prearranged limitations and an electronic archive with references will help to draw players' creations closer to the historical period referred in the video game. The result is a video game that recreates the activity of historians, where players make history within a community. This proposition conveys adequately what a deconstructionist historical video game could entail.

However, while Kee's proposition is useful, his definition of the genre of adventure games is imprecise as it does not correspond with existing video game examples. Neither commercial action-adventure video games like the *Assassin's Creed* (Ubisoft Montreal, 2007) series, nor scholarly text adventure video games (Coyne, 2017a; McCall, 2018; Morley, 2019b), offer the limitless play structures, the gnoseological narratives, or the community engagement that Kee suggests. Moreover, direct correlations between historiographical approaches and genres have been put under question, as the relation between deconstruction and video games seems to go beyond the boundaries of video game types (Chapman, 2016a, p. 150).

Within the existing literature there is a general perception that, not only adventure games, but historical video games in general, tend to favour a deconstructionist historiographical approach, based on several aspects of the medium. For example, Chapman (2013c, pp. 34, 141, 154) refers to 'uncertainty' as a defining principle of play (Caillois, 2001, p. 9) that can prompt self-reflexive narratives and deconstructionist notions of history. Uricchio (2005, p. 333) goes in the same direction pointing at the degree of uncertainty that games in general entail, arguing that "games by definition subvert the project of consolidation and certainty associated with the former brand of history". This uncertainty allows for self-reflexivity and awareness of the construction of history with an acknowledgement of subjectivity. Chapman (2016a, pp. 154, 249) also refers to video games' narrative multiplicity and players' playful agency, that offers a certain freedom in choosing goals. These aspects advocate for a postmodern approach, forgetting authoritative linearity in favour of more complex, or even contradictory, narrative structures. Tara Copplestone (2017, p. 419) points out that video games seem suited for a deconstructionist approach "with its player agency, systems-based approaches and

potential for reflexivity”. Gish (2010, p. 168) also argues that “the interactive possibilities games provide have the potential to call into question fixed narrative histories that prescribe deterministic conceptions of the past”. Andrew Salvati and Jonathan Bullinger (2013, p. 156) further state that “interactive historical simulations encourage a dynamic engagement with the past based on creation, imagination, and replayability, allowing players to reconfigure stable or totalizing representations”. All these arguments suggest that video games formally allow for a degree of uncertainty, authoring, reflexivity, subversion, and multiplicity, that is in line with, or could favour, the characteristics of deconstructionist history seen in the previous section.

In this line, several researchers (Uricchio, 2005; MacCallum-Stewart and Parsler, 2007; Apperley, 2013; Chapman, 2013c, 2016a) have looked particularly at ‘counterfactual history’ as a clear manifestation of this connection between deconstructionist history and video games. Counterfactual history, also referred to as ‘virtual history’ (Ferguson, 1999; Uricchio, 2005, p. 335), is a strategy or exercise of abstraction for thinking about historical relationships from new configurations. Many historical video games allow players to engage with this counterfactual approach, by changing events and outcomes, or exploring alternative resolutions. It shows what video games’ uncertainty and reflexivity can signify for historical narratives. Thomas Apperley (2013) argues in this sense that video games like *Europa Universalis II* (Paradox Development Studio, 2001b) allow players to transform historical paradigms:

(...) the game works to deconstruct teleological paradigms that declare events to be inevitable. More specifically, counterfactuals can undermine the sense of fate that dominant groups adopt to justify their hegemony. (Apperley, 2013, p. 190)

However, historical video games that encourage counterfactual explorations also present their own dominant narratives that guide the overall experience and limit player’s subversion. Chapman (2016a, p. 119), following Tom Bissell (2010, p. 37), argues that the narratives in historical video games are comprised by a ‘framing narrative’, “discrete narrative fragments not changeable by gameplay”; and a ‘ludonarrative’, or “the narrative that emerges through a player’s play”. Video games rely on different narrative structures, or arrangements, to negotiate between these two narratives, generating different considerations about history and the past:

(1) A ‘deterministic story structure’ (Chapman, 2016a, p. 128) entails the privilege of the framing narrative in composing a linear story, where the majority of narrative decisions are impervious to players’ actions or interpretations, as in first-person shooter (FPS) video games like *Call of Duty* (Infinity Ward, 2003) or *Medal of Honor* (DreamWorks Interactive, 1999).

(2) An ‘open story structure’ (Chapman, 2016a, p. 130) where both, framing narrative and ludonarrative, are in constant negotiation. Usually this structure implies a large framing narrative within which players are offered with multiple choices to craft their desired narratives, much as in adventure and open role-playing games (RPG) like *Assassin’s Creed* (Ubisoft Montreal, 2007) or *Red Dead Redemption* (Rockstar San Diego, 2010).

(3) Finally, ‘open-ontological story structures’ (Chapman, 2016a, p. 129) offer a primacy of ludonarrative over framing narrative, where players are given freedom to craft their historical narrative, for example grand strategy games like *Civilization* (MicroProse, 1991) or *Europa Universalis* (Paradox Development Studio, 2001a). The framing narrative in this arrangement only works to prompt player’s engagement and to provide tools and resources for crafting a historical narrative. This later narrative structure might be the one with more possibilities for embracing a deconstructionist historiographical approach, by forcing players to consider the practice of creating history.

Each of these narrative arrangements negotiate the tension between player’s and designer’s narratives differently, giving primacy of one over the other. I contend this tension between narratives relates to the previously argued video games’ unique mediality. Video games’ acknowledgement of interactivity forces narrative structures that challenge authorship and exclusivity, in favour of reflection and multiplicity. It generates a tension between types of narratives, but also between epistemological claims, by integrating players’ interpretations to the original historical narrative. According to Chapman (2016a, p. 253) this could be seen as the pressure that the form (the medium) generates over the content (the intended narrative), which could suggest that “most, if not all, historical video games touch upon deconstructionist ideas” (Chapman, 2013c, p. 250).

However, despite these arguments, the relationship between historical video games and deconstruction is still contested. First, because these deconstructionist ideas tend to coexist with others that directly point towards differing forms of conceptualising history (Uricchio, 2005, p. 335; Chapman, 2016a, p. 150). The medium may pressure towards deconstructionist ideas, but existing historical video games seem to present a mix of different ideological and historiographical claims within their narratives, introducing axioms from reconstructionist and constructionist approaches. But also, because when these deconstructionist ideas are naturalised, when they are unintentionally included, they may lose their subversive impulse, as Espen Aarseth (1997, pp. 86–87) has argued with digital media labelled as postmodernist. In this regard, historical video games explicitly created to explore a deconstructionist approach are uncommon (Chapman, 2016a, p. 81; Copplestone, 2017, p. 419).

In summary, previous researchers have pointed at the idea that video games formally favour an engagement with deconstructionist history, by prompting historical narratives that challenge authority and call for reflexivity. This is due to tensions between different narratives and perspectives that the medium encourages. Despite this, it is not possible to refer to historical video games as embracing a deconstructionist historiographical approach. The ‘form’ may pressure towards deconstructionist ideas, but within the ‘content’ there is a mix of historiographical approaches cohabiting. This could complicate analysing and classifying historical video games within conventional historiographical paradigms, but it also emphasises the need to address historical video games as part of a wider and more general conceptualisation of history and the past.

2.4 Historical Video Games as Public History

2.4.a Media and History

The relevance of non-academic or non-professional history in the composition of our common understanding of history has been well acknowledged by previous researchers (de Groot, 2009; Curthoys, 2012; Rosenstone, 2012, p. 14; Chapman, 2016a, p. 11). Films, novels, theatre, comics, even advertisement are part of these public forms of history. These popular histories are what allow people to introduce themselves “into a larger historical narrative” (Landsberg, 2009, p. 222), as they provide resources to discuss our common conceptualisation of the past (Wertsch, 2004, p. 18). In the case of video

games, Gordon Calleja (2010, p. 342) argues that we should not disconnect the game from the real-world experiences, as they both inform each other and how we perceive them. These forms of history are meaningful as accessible referential points, as it is through them that most people engage with the past (Chapman, 2016a, p. 13). Thus, only by analysing these types of historical narratives we can expect to understand what history is as a social idea and practice (Samuel, 2012, p. 8).

When approaching historical video games, I argue it is important to recognise them as part of this conundrum of public history. Claudio Fogu (2009, p. 119) suggests that discussions of postmodern historical video games need to be “inserted into a wider consideration of the remediation processes that characterise video games more than any other medium before or after”. Indeed, historical video games tend to reproduce and rely on historical narratives found in other video games, other forms of games, and other mediums in general. The history they embed is one that resonates with larger historical discourses and with players’ own expectations (Apperley, 2010, p. 22; Chapman, 2016a, p. 36). Any considerations over the relation between historiography and historical video games needs to acknowledge the prevalence of this realm of public history and the difficulty to adapt traditional historiographic labels to it.

As emphasised, Uricchio (2005, p. 335) and Chapman (2016a, p. 150) noted that within historical video games, multiple historiographies can cohabit. Jerome de Groot (2009, p. 4) argues in this sense that public history entails a “multiple, multiplying, and unstable” idea of history, that responds to a mix of discourses, interrogations, uses, and formal systems. Particularly within the digital age, Wulf Kansteiner (2007, p. 132) states that there are no centralised institutions in these forms of history that guide our historical consciousness. This apparent lack of authority leads to the problematisation of public history as a sanitised commodity (Lowenthal, 2007, p. 211; Power, 2007, p. 274). But while the complex map of axioms found in historical video games can lead to beliefs in a lack of meaning, or in an absolute trivialisation, I reflect that public history exposes the complexity of history as a social concept that is innately heterogeneous (de Groot, 2009, p. 6). Public histories may not carry the academic curated version shared within the academic realm, but they reveal what transpires from it, what permeates and mutates forming its own dissident historiography. Furthermore, while the themes and historiographical approaches of historical video games might appear as traditional or

limited on the surface (Schut, 2007, p. 221), the development of the video game industry in the last few decades, especially with the emergence of serious games and independent studios, are encouraging innovation (Šisler, 2016).

Rather than avoiding conversations with public history, I think it is important to engage with it, understand it, and even attempt to feed it, with the explicit aim of nurturing a wider and more critical conceptualisation of history. Moreover, acknowledging historical video games as popular history also allow us to address its reception and understand the perception and reach that these historical narratives have for conceptualising history.

2.4.b Reception Studies

Reflecting on the meaning behind texts, Roland Barthes declared in 1968 the “death of the author” (Leitch, 2001, p. 1466). To remove the author means to understand the text as a blending tissue, a multiplicity that comes together at its destination: the reader (Leitch, 2001, p. 1469). Further models for understanding how meaning is negotiated and created, like Stuart Hall’s ‘encoding/decoding’ (Hall *et al.*, 2005, p. 120), reconsidered the roles of both, producers and receivers, and acknowledged the difference between the intended message and the possible interpretations. These ideas contributed to the appearance of reception studies, defined by James Machor and Philip Goldstein (2001, p. xiii) as the study of how “texts are constructed in the process of being received”.

Within historical video game studies, research focused on audiences has had a noticeable development. Most of the research has focused on the learning potential of the medium (Corbeil, 1988, 2011; Schick, 1988; Matei, 2015; Metzger and Paxton, 2016), particularly within formal education environments (Schick, 1985; McClymer, 1987; Taylor, 1994, 2003; Corbeil, 1999; Squire and Barab, 2004; Egenfeldt-Nielsen, 2007; McMichael, 2007; Watson, Mong and Harris, 2011; Weir and Baranowski, 2011; Fisher, 2011; McCall, 2011, 2012, 2014; Alexander, 2013; Walsh, 2013; Wainwright, 2014; Stouraitis, 2016). Among these, Kurt Squire’s work (2004) is of particular interest for this thesis. By using historical video games in classrooms, he concluded that the potential that the medium offers is not within the video games’ content, but on the learning communities and practices they prompt, that allow to engage with further discussions about history (Squire, 2004, p. 332).

Most of the research so far has focused on high schools, and very few in higher education contexts. Roberta Devlin-Scherer and Nancy Sardone (2010) were the first to analyse teacher-candidates' perception about historical video games. More recently, Robert Houghton (2016) has looked at university students' engagement with historical video games, analysing the impact that this medium has in both, their interest in, and their knowledge about, history. Houghton concludes that students felt their conceptualisation of history to be more influenced by historical video games than other media, and that video game genres with complex game systems had more influence over their knowledge of history while those with simple mechanics encouraged their interest in history (Houghton, 2016, p. 31). While more research about this university context is needed, current studies have highlighted the reach and relevance of the medium in terms of how historical video games are part of people's engagement with history, and how they have a role influencing people's interests and knowledge.

When it comes to historiography and historical video games, reception studies have been relevant for expanding the understanding of concepts like 'historical accuracy' and 'historical authenticity'. The distinction made by Andrew Elliot (2011, p. 215) between historical accuracy as the accurate representation of the past, and historical authenticity as the perception of accuracy within a representation of the past, has become highly relevant for the analysis of historical video games. Following this paradigm, historical video games are not to be analysed under the premise of their accuracy, but on how they manage to address an expected historical narrative: "it is not and cannot be about 'getting the historical facts correct,' but is about getting the experience and expectations of the past 'right'" (Kapell and Elliott, 2013, p. 361). This approach is not exempt from criticism, even by Mathew Kapell, co-editor with Elliott, who stresses on the same page that this emphasis on authenticity when studying historical video games can diverge into a reflection on the "myths" around history rather than studying the narratives about the past. But regardless of this criticism, the debate between accuracy and authenticity certainly reflects the complexity of non-academic historical narratives and allows to conceptualise how such narratives are also involved in the public reception of history.

For this reason, the discussion around accuracy and authenticity has also been tackled looking at players' perspectives. For example, Sian Beavers and Elizabeth FitzGerald (2016) have analysed players' perception of historical video games, looking at

engagement with this medium outside of formal educational contexts. This study looked at how people discerned historical authenticity, noting how they focused on small details to base their criteria. This research substantiates Salvati and Bullinger's (2013, p. 184) analytical study where they identified three categories of 'selective authenticity': (1) technology fetishism, or the prioritisation of accurate representation of armament; (2) cinematic conventions, or the use of documentary-style and newsreel cutscenes; and (3) documentary authority, representing documents, maps, photographs accurate to the period. The researchers speculate that by introducing these elements, video game developers manage to satisfy player's expectations and synthesise their selective authenticity. Similarly, Holger Pötzsch (2017, p. 157) refers to 'selective realism' as the intended omission of historical aspects that might be perceived as negative or non-enjoyable.

Corroborating these claims, the study of Tara Copplestone (2017) goes beyond player reception to include other stakeholders involved in production and analysis of historical video games. She analysed how players, developers, and researchers, perceive historical accuracy in historical video games. Doing so, Copplestone was able to substantiate previous arguments on the problematic relationship between epistemology and historical video games by identifying how the production of these video games is strongly shaped by historical representations in other mediums and it leans towards a reconstructionist historiographical approach (Copplestone, 2017, p. 423). However, she also noticed how these normative perceptions of the relationship between historical video games and accuracy are controlled and perpetuated by producers and managers rather than programmers or designers, who tended to acknowledge this approach to history as problematic but lacked the capacity to act (Copplestone, 2017, p. 434). This goes in line with a "box-ticking" approach (Lowe, 2009, p. 76) where anachronic elements that are recognisable to the player are added in order to incentivise their feeling of authenticity. Furthermore, Copplestone also found that players were the only group to discuss accuracy by acknowledging the tension between the medium and traditional historical approaches, suggesting that there is an increasing awareness from players on "the reflexive role which the media form, the creator, the consumer and the content have in structuring knowledge and interactions with the past" (Copplestone, 2017, pp. 434–435). All of this shows that, beyond corroborating arguments, reception studies can bring new supporting data and reveal another perspective to key theoretical issues.

As it can be seen, the wider range of reception studies allows to deepen into the analysis of historical video games. Furthermore, it allows to explore how historical video games, as a form of historical narrative, are able to convey and share historical knowledge, and even foster historiographical debate among players. However, meaning negotiation in video games is a contested topic that requires further considerations.

2.4.c Negotiated Meaning

Discussing meaning in video games entails a certain complexity. On the one hand, there is the idea that video games can be designed to convey certain meaning. An idea that goes in this direction is that of ‘procedural rhetorics’ (Bogost, 2007, p. 3), that Juan Hiriart (2017) concisely defines as “a paradigm that sees games as powerful persuasive devices, capable of conveying complex meanings about the world in the formal encoding of its procedures and rules”. Through such vision of ‘procedurality’, it is possible to explore historiographical ideas through serious games and critical play (Flanagan, 2009, p. 6). On the other hand, there is an awareness that meaning comes from the act of playing, and players are involved in the construction of the message. As Miguel Sicart (2011) argues: “when a player engages with a game, we enter the realm of play, where the rules are a dialogue and the message, a conversation”.

Because of this, I think it is important to further embrace the idea of negotiated meaning, between developer (author), player (reader), and video game (medium) as well, and to study how they relate to each other. The use of theorisations like Erving Goffman’s (1986) ‘frame theory’ to analyse historical narratives in video games can go in this direction. Looking at how video games are ‘framed’, how they are presented and referred to, Linderroth and Chapman (2015) identified a ‘ludic frame’ with intrinsically trivialising properties that influences over what can and cannot be incorporated in a video game. They referred to this as ‘the limits of play’. They argued that:

[a medium’s rules of engagement] are not only dependent on the restrictions and pressures of the form as an object in itself but also the nature of the frames that the form and chosen content are together perceived to invoke within the specific context of cultural discourse in which they are constructed and disseminated (Chapman and Linderroth, 2015, p. 13).

How the medium or text is labelled echoes how we negotiate its meaning. In the case of historical video games, this position regarding the medium entails assuming that the

composed historical narratives are also the result of a negotiation with multiple collaborators. Chapman (2016a, p. 51) defines this space of shared authorship as ‘(hi)story-play-spaces’ and argues that the possible narratives within it depend on the structures that regulate these tensions and negotiations. However, regardless of how this space is regulated, historical video games can produce “vastly divergent historical narratives within the same story space” (Chapman, 2016a, p. 34). Under such consideration, the question that remains is how we can explore a concrete historiographical approach, assuring that the possible historical narratives produced would, at least, address core ideas from such conceptualisation of history.

In his analytical framework, Chapman (2013a, 2016a) uses the concept of ‘affordances’, developed by Eleanor and James Gibson in *The Ecological Approach to Visual Perception* (Gibson, 1986), and later applied to game studies by Jonas Linderöth (Linderöth and Bennerstedt, 2007; Linderöth, 2012, 2013). Affordances can be defined as the allowed actions between a given environment and humans (Linderöth, 2013, pp. 3–4). It refers to what the environment allows us to do, as a property that does not belong only to animals but emerges from their interrelation of animal and environment (Linderöth and Bennerstedt, 2007, p. 601). In the case of video games, the input devices, the software, and the screen constitute part of the environment, and players are offered a range of possible actions to interact with it, from basic button press and display viewing, to being able to change the information displayed on the screen environment (Chapman, 2016a, p. 62). In other words, affordances refer to the possible actions in a video game as allowed by both, the player and the virtual environments. I also differentiate between affordances, as possible interactions, and mechanics, as intended interactions, addressing that the interactions that a video game produces can be both, intentional and unintended. In this sense, the concept of affordances is a key ingredient in the negotiation of meaning².

In this line, Linderöth (2013, pp. 6–7) argues that games can be broadly divided into two categories: those that imply ‘exploratory challenges’, where actions are easy to perform but hard to discern, like board games and strategy video games; and those that imply ‘performatory challenges’, where actions are easy to discern but hard to perform, like

² While I rely on Linderöth’s approach to affordances for the most part, other researches have used it differently for engaging with video games. For example, James Paul Gee (2015, pp. 24–26) uses affordances as a speculative concept to equalise conversation, acts, and play, referring to all as the same basic activity. Under such approach, methodologies such as discourse analysis could be generalised for the analysis of affordances in games, texts, or events.

sports and shooter video games. When it comes to history, Chapman (2016a, pp. 183, 189) argues that some historical video games entail exploratory challenges associated with ‘historying’.

‘Historying’ (Denning, 2007, p. 102) refers to the authorial act of writing, and thus creating, history. Looking at video games as a medium for historying implies, not only that the historical narratives they offer are equal to other representations, like cinema, novels, or even academic books, but that they are, or can be, more than representations, that they are in fact another form of creating history. This would also coincide with previous arguments on video games and learning (Shaffer *et al.*, 2005), that suggest that the main potential of this medium do not resides on its capabilities for conveying content, or ‘substantive knowledge’, but on its capabilities for conveying processes, ‘procedural/disciplinary knowledge’. This engagement with historying also supports the idea that historical video games in general tend towards a deconstructionist historiographical approach, because they all engage with the process of authoring history.

While thinking about video games as a form of historying is revealing, it is also worth asking whether these affordances of historying are intended and recognised. Factors like hardware limitation and enjoyment are not the only constraints for the affordances in a video game. It is likely to assume that in historical video games affordances are also partially determined by developers’ understanding of history (Chapman, 2016a, p. 174; Copplestone, 2017, p. 420). Their previous knowledge and perception of the past, as well as their interpretation and ideology, can encourage specific affordances. In this case, we should ask if developers engaged with historying because of their conceptualisation of history, or if they do so because of the formal possibilities and pressures of the medium itself.

This brings back to the idea of negotiated meaning. While thinking in terms of affordances and what players interpret, I think we also must account for the developers’ intentionality, and whether a certain historiography was consciously embedded in their video games. Affordances that allow for historying might be meaningless if they are conceived and perceived, by developers and players, as innate, and they do not reflect explicitly on historical practice. For example, the fact that historical video games allow explorations of counterfactual history might be more in relation to the trivialising properties of the ludic frame that allow a disassociation from academic history, than with an intentionally

crafted deconstructionist approach. Because of this missing intentionality, it is questioned whether there are historical video games that actively engage with a deconstructionist approach (Chapman, 2016a, p. 81; Copplestone, 2017, p. 419).

It should be noted that there are video games that do address the historiographical influence of their designs. For example, the commercial historical video game *Attentat 1942*, also known as *Czechoslovakia 38-89: Assassination* (Charles University and Czech Academy of Sciences, 2015, 2017), was created as part of a design-based research project and openly addressed academic discussions regarding historiography (Šisler *et al.*, 2012, 2014; Pötzsch and Šisler, 2019). While not assuming a deconstructionist approach publicly, the developers aimed to explore the medium capabilities for conveying historical narratives, addressing the epistemological challenges that they encountered (Šisler, 2016). Another example is the scholarly text adventure *Destory History* (Coyne, 2017a), which might be one of the few video games openly informed by deconstructionist ideas.

There are also a handful of commercial non-historical themed video games that can be labelled as deconstructionist or postmodern, either because:

- (1) they propose the deconstruction of a specific theme, like the exploration of free will in *The Stanley Parable* (Galactic Cafe, 2013) where players are explicitly questioned on their capacity to break the video game's narrative;
- (2) they propose a deconstruction of video games as a medium, like *Metal Gear Solid 2* (Konami, 2001) that breaks players' immersion and expectations of a video game by purposely repeating levels or making them impossible to beat (Stevenson, 2015), or to a lesser degree *UNDERTALE* (Toby Fox, 2015) and similar titles that aim to deconstruct video game genres and tropes by changing core mechanics; or
- (3) they deliberately introduce postmodern discourses, as Daniel Muriel (2016) has argued regarding the hyper-reality, reflexivity, and subversion found in *The Secret of Monkey Island* (LucasArts, 1990).

These few historical video games referenced above, and these examples of general deconstructionist video games, suggest that deconstructionist explorations towards history are possible.

As sites for public engagement with history, historical video games highlight the process of negotiated meaning behind the historical narratives created through them. To analyse the relation between historiography and historical video games is, in this sense, a complex endeavour, as the mix of axioms and interpretations can complicate the categorisation of concrete historiographical approaches. In this regard, I think it is important to address meaning in historical video games as negotiated between developers' intentionality, players' interpretation, and medium' propensity. By doing so, we can appraise historical video games for their capability to engage with history and disciplinary knowledge, and for contributing to adding historiographical paradigms and axioms into a public conceptualisation of history.

Finally, I contend it is possible to address specific historiographical approaches within historical video games despite the complexity of negotiated meaning. This should be achievable by (1) consciously informing the design with a historiographical approach; (2) taking advantage of formal aspects to embrace this approach, and (3) encouraging players towards interpretations and debates within the desired approach. Hence why, despite the primarily design-based approach, this research also engages with a formal and reception perspectives. I think such consideration could allow us to further engage with historical video games, not only as objects to analyse, but also as objects to create.

2.5 Chapter Summary

In this chapter, I have examined the most relevant literature for this thesis, aiming to map the academic background that informed my research and substantiate its pertinence.

First (2.2), I presented a definition of video games as a medium, that entails its own unique materiality, mediality, and cultural significance. I specifically argued that video games' unique mediality, or form to mediate content, is based on acknowledging and engaging with interactivity in a systematic way. I also defined historical video games as "games that in some way represent the past, relate to discussions about it, or stimulate practices related to history" (Chapman, Foka and Westin, 2016, p. 10). I further introduced the field

of historical video game studies and situated this thesis as a design-based research focused on the relation between historical video games and historiographical approaches.

Next (2.3), I unpacked the complex relationship between historical video games and the deconstructionist historiographical approach. The current theoretical frameworks have allowed to identify the relation between historical video games and other historiographical approaches (Uricchio, 2005; Kee, 2011; Chapman, 2016a), but they have also shown a more convoluted perspective when talking about the deconstructionist approach. I described a deconstructionist historiographical approach as one that focuses on history as a constructed narrative and aims to identify discourses behind the process of writing history. The relationship between historical video games and deconstructionist history is contested. The mediality of video games is seen as highlighting narrative tensions that call for reflexivity and challenge authority. However, historical video games do not embrace a clear historiographical approach, but rather a mix of axioms that corresponds with popular conceptualisations of history.

In this regard, I have argued in the last section (2.4) that we must acknowledge historical video games as sites for public engagement with history to further understand their potential to explore historiography, addressing that meaning and historical narratives in historical video games are negotiated between developers, players, and the medium. Under such approach, we can reconsider the pertinence of historical video games to engage with forms of historying and disciplinary knowledge, and to debate and introduce historiographical ideas within public conceptualisations of history. I argued that the exploration of a deconstructionist historiographical approach in historical video games needs to account for this negotiation between the medium and its unique mediality, the player and its possible interpretations, and the developer and its intentionality.

After delineating the most relevant literature for this research, and after establishing some of the departing arguments, in the next chapter I have detailed the methodology followed to explore this topic.

Chapter 3. Methodology

3.1 Chapter Overview

In the previous chapter, I discussed the relevant literature and situated this thesis within it. Continuing with this, the objective of this chapter is to offer a concise review of the methodological approach selected for this research. This project entails a design-based approach, that aims to generate knowledge by going through the process of designing and evaluating a prototype. The core methodology embraced is ‘research through design’ (RtD). It was applied to engage with the creation of a historical video game prototype that aims to explore a deconstructionist historiographical approach.

In the following pages I focus on: describing this methodology and other relevant approaches (3.2); detailing the research context (3.3); explaining the different phases of the study (3.4); the data analysis process (3.5); the ethical considerations (3.6); and discuss the advantages and limitations of the methodology (3.7).

3.2 General Approaches and Type of Study

3.2.a Research Through Design

The core methodology of this research is RtD, an approach used in the field of human-computer interaction but broadly recognised in all design fields. This design-based methodology involves the design, creation, and implementation of a product or artefact with a specific research aim (Lankoski and Holopainen, 2017, p. 4). The emphasis of this approach is not on the artefact created but on the design experience, and the unique perspective that can only be obtained through the design practice (Godin and Zahedi, 2014, p. 1). In other words, it is about pursuing knowledge from and throughout the process of designing. The objective of this methodology is set towards developing design principles, validating design approaches, understanding design as an activity, or working around conceptual frameworks (Lankoski and Holopainen, 2017, p. 4). In the case of this research, the methodology of RtD allowed me to engage directly with video games and their design process, in order to consider and evaluate the possibilities that the medium

offers for exploring a deconstructionist historiographical approach from a practical standpoint.

The RtD approach originates from Christopher Frayling's idea of research through art (1993, p. 5), that was later applied as a category for design research by several academics (Findeli, 2004; Zimmerman, Forlizzi and Evenson, 2007; Forlizzi, Stolterman and Zimmerman, 2009; Lankoski and Holopainen, 2017). These previous researchers differentiated between three approaches to design research: research 'on' ('into' or 'about') design, research 'for' design, and research 'through' design. This latter approach is said to be the closest to the actual design practice and includes an aspect of experimentation (Godin and Zahedi, 2014, p. 2) as well as an aim towards developing conceptual frameworks and design theories (Forlizzi, Stolterman and Zimmerman, 2009, p. 2894).

As a methodology, John Zimmerman, Erik Stolterman and Jodi Forlizzi (2010, p. 313) describe RtD as the "process of iteratively designing artefacts as a creative way of investigating what a potential future might be". There is no agreement on a single research model for RtD, and some of the attempts to integrate methods in order to consolidate this methodology (Stolterman, 2008; Zimmerman and Forlizzi, 2008; Zimmerman, Stolterman and Forlizzi, 2010; Forlizzi *et al.*, 2011) have been contested. William Gaver (2012, pp. 940, 945) argues that the theories that RtD produce are part of a generative endeavour that cannot be evaluated in the same terms of other disciplines, and he alerts that the pursuit of creating extensible and verifiable theory through RtD could constrain the possibilities of the approach. Regardless of this apparent lack of standardisation, all the proposed approaches to RtD share a common goal: "establishing aspects of research done through the design process and its resulting product" (Godin and Zahedi, 2014, p. 2). And they all share some common values: the relevance of contact with potential audiences before, during, or after design; iteration as a crucial step to achieve a good design; and specially "that the synthetic nature of design allows for richer and more situated understandings than those produced through more analytic means" (Gaver, 2012, p. 942).

Some researchers have argued similarities with common methodologies from the social sciences, mainly grounded theory and action research (Findeli, 1998; Jonas, 2007; Godin and Zahedi, 2014). On the one hand, grounded theory refers to a research approach that

aims for constructing theory through the analysis of qualitative data, relying on a simultaneous process of data collection and analysis that ensures that the outcome emerges from the empirical evidence (Ritzer, 2007, p. 2023; Charmaz, 2017, p. 299). On the other hand, action research refers to a methodology based on practical actions that aims to produce and share new knowledge (Archer, 1995, p. 6), it also focuses on localised issues and contexts (Stringer, 2007, p. 1). Alain Findeli (1998, p. 111) and later Wolfgang Jonas (2007, p. 192) have both argued that the objectives of RtD are a combination of grounded theory, that aims for building theory based on empirical data; with action research, that aims to engage with reality through processing and adapting theory. Danny Godin and Mithra Zahedi (2014, pp. 6–7) also suggested that the validation for RtD could come from a combination of: (1) recoverability from action research, that the process of data gathering and analysis can be recoverable and scrutinised; (2) theoretical sensitivity from grounded theory, that the researcher can use the data to present new ideas and develop theory; and (3) design success, that the product or prototype successfully achieves the desired outcome.

These statements on the core principles of RtD suggest a high degree of dynamism in the methodology. While the idea of producing knowledge through the practice of design is highlighted, the configuration and requirements of such design process is left open. As such, in order to avoid a subjective construction of knowledge, a critical approach is required. This implies meticulous insights and a constant analysis of the design process and the outcomes, as well as “flexibility within the adopted research methodology to avoid becoming dogmatic about using particular method assemblages.” (Coulton and Hook, 2017, p. 109).

For RtD projects that involve video games, the game design approach followed is open to the researcher’s criteria and deemed to change during the research process. In the case of this research, two approaches to game design were consulted during the design process: ‘play-centric design’ and ‘critical play’. Play-centric design focuses on combining and tuning the formal and the dramatic elements of the games to create a specific experience (Dormans and Holopainen, 2017, p. 79). It focuses on prototyping, iteration, and player feedback to tune the desired experience. Critical play focuses on encouraging players “to think critically about the problems that the game reflects upon”, using the game as a mode of critical analysis (Coulton and Hook, 2017, p. 104). To achieve this, the game tries to

stress the tensions between player objectives, obstacles, and rules in order to make room for reflection: “Critical gameplay is created by observing a set of standard assumptions, deconstructing the assumptions in that standard, and reorienting that set of assumptions through the production of an alternate model of play” (Grace, 2010, p. 128). It should be said that other approaches similar to critical play, such as critical design (Dunne, 2005), speculative design (Auger, 2013), and design fiction (Lindley and Coulton, 2015) were also consulted, but they were seen as part of critical play as they share similar core ideas (Coulton and Hook, 2017, p. 105)³. These two approaches to game design have been the main guidance through the design process of this research, without a primacy of one over the other.

As a methodology, RtD has been particularly prevalent in game design research since the 2000s. Research institutions created around this time have nurtured this approach, such as The PLAY Studio in Gothenburg, the Mixed Reality Lab at University of Nottingham, the Game Research Lab at University of Tampere. It has also been present in many international conferences and spaces, such as ISAGA, SIGGRAPH, CHI PLAY, or FDG (Lankoski and Holopainen, 2017, p. 4).



Figure 4 - Caption of the video game "Gua-Le-Ni; or, the Horrendous Parade" (Gualeni, 2011)

³ In this regard, it has also been criticised that critical play and critical design might not be suitable for research, as their focus is on developing a product rather than generating knowledge (Waern and Back, 2017, p. 158). However, the use of these approaches in this research is merely as a supportive approach for the design process. The focus on knowledge is remarked by the RtD approach and remains in the spotlight.

Among its different applications (Guardiola and Natkin, 2017; Quinten, Malliet and Coninx, 2017; Waern and Back, 2017), the version of RtD that is most akin to this research is the one that focuses on exploring philosophical ideas through game design. An example of such approach can be seen in the work of Stefano Gualeni, who, inspired by critical play, uses video games for philosophical interrogations. For example, in his video game *Gua-Le-Ni; or, the Horrendous Parade* (Gualeni, 2011) (see Figure 4) he proposes a playful negotiation of David Hume's notion of complex ideas (Gualeni, 2015, p. 86). In this game, players have to identify paper chimeras randomly assembled from combinations of different animals' body parts (Gualeni, 2015, pp. 55–56). Researchers performed psychophysiological analyses of players during development to evaluate their reactions and performance while playing. Gualeni argued that players' identification of these creatures is a reflection of Hume's concept of "complex idea", one that cannot be caused from immediate sensory impressions but requires mental combinations of elements and properties (Gualeni, 2015, p. 87).

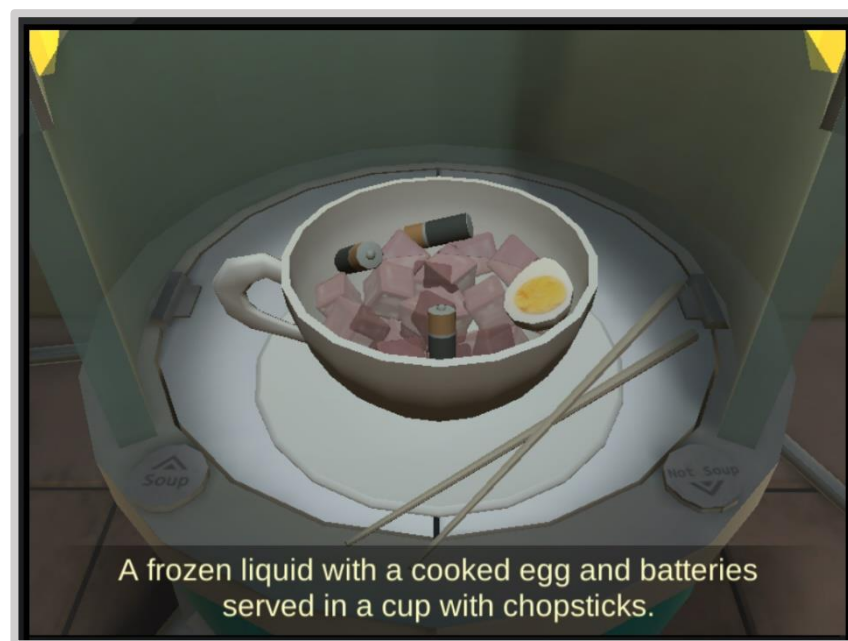


Figure 5 - Caption of the video game "*Something Something Soup Something*" (Gualeni, 2017b)

Another example is *Something Something Soup Something* (Gualeni, 2017a) (see Figure 5), an experiment on the possibilities of language and the limitations of analytical categories. Inspired by the work of Ludwig Wittgenstein, this video game presents a situation in which players are required to craft a definition of an object (a soup, in this case) by sorting examples of it. To design this video game, researchers organised several focus groups in different countries to understand how people from different cultural

backgrounds defined a soup. The outcome, as the authors argue, is that the definition of an object is subjective and culturally dependent (Gualeni, 2017b).

Beyond explorations of philosophy, what is important from these examples is that video games can foster debates and open new perspectives on complex cultural issues. They can be seen as a speculative practice, not only for reflecting on concepts, but also for exploring alternatives (Coulton and Hook, 2017, p. 104). According to Gualeni:

(...) virtual worlds can be recognised as pragmatically opening up new and interactive horizons of thought, and of ways to understand time, space, properties, and causation that are supplementary, and in some cases even alternative, to those through which human beings structure their everyday relationships with the actual world. (Gualeni, 2015, p. 85)

Design-based research has also been applied in historical video game studies with the intention of exploring philosophical and historiographical concepts. One example of this is Juan Hiriart's explorations of virtual historical spaces and spatial perception. In his video game prototype, he combines two different game styles, each one with a unique spatial perspective of the virtual world, in order to convey both micro and macro historical approaches (Hiriart, 2017, p. 5). Using "Lefebvre's theory of the social production of space and Tim Ingold's 'dwelling perspective' on the perception of the landscape", he focused on how virtual environments are charged with ideology, and how players themselves create the virtual environments through their social interactions (Hiriart, 2016, p. 36, 2017, p. 2). For the development of his prototype, he conducted multiple evaluations with primary school students, focusing on their gameplay and reactions, and changing the prototype design based on this feedback to gather further data.

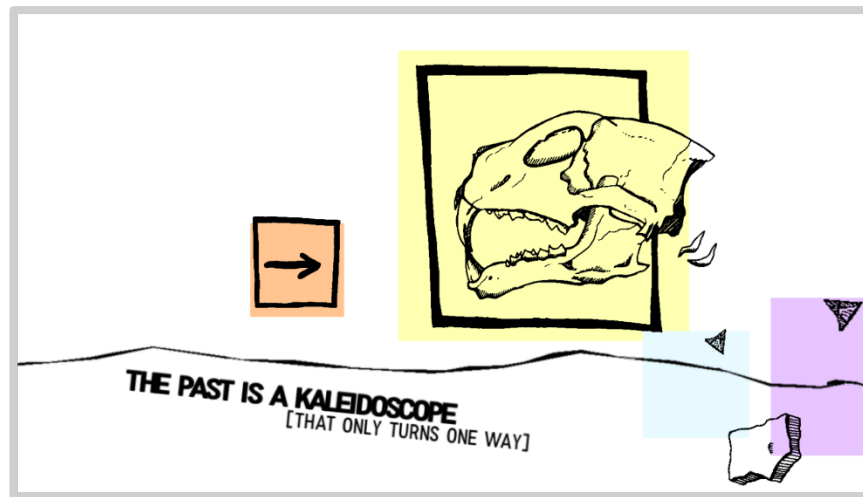


Figure 6 - Caption of the video game “*The Past is a Kaleidoscope*” (Copplesstone, 2016)

Another example is Tara Copplesstone’s *The Past is a Kaleidoscope* (Copplesstone, 2016) (see Figure 6) which proposes an ontological reflection on the inaccessibility of the past and the conceptualisation of history as a created narrative. Copplesstone’s video game consists of a series of hand drawn archaeological pieces over multi-layered coloured polygons and a white background; accompanied by verses that compose a poem about history and archaeology. The players’ input is limited to the arrow keys of the keyboard. Players are encouraged to move forward to unveil the different parts of the game’s narrative. However, they cannot go back to their previous position. This mechanic (or the lack of it) allows the game to suggest the inaccessibility of the past, which is reinforced with the illustrations of shattered material culture, and the textual statements:

The past is a kaleidoscope [that only turns one way] (...) try as we might time marches on, the past simply cannot stay

Slowly, the illustrations of material culture are left behind, and new images showing archaeological tools appear, as the poem ends stating:

These fragments found are glistening gems, combined, ordered, and given meaning by whoever holds the lens

This adds another dimension to the ontological claim of the game: With the past no longer accessible, all that is left is a historical narrative that relies on the interpretation of historians. The game also points to the difficulty of such interpretation, and visual elements are used to reinforce this. As the player moves, the multilayer background changes, with coloured squares moving around and overlapping each other, covering and uncovering images, creating unique perspectives with every movement. This shows how

all aspects of the video game, mechanics (or intended interactions), images, textual information, and even music, can work in conjunction to explore a historiographical idea.

The examples of Gualeni, Hiriart, and Copplestone are different from one another, but they all show how design-based research, and particularly the methodology of RtD, offers the possibility to engage directly with video games by embracing the process of design and creation. The knowledge that such process can prompt is unique, as it comes from combining theory and practice, experimenting with video games at a formal level, and iterating through issues and solutions along the way. It allows to tackle complex philosophical and historiographical concepts while attempting to develop tangible outcomes. Considering all this, I contend that RtD is the most fitting approach for analysing the potential that video games might offer for exploring a deconstructionist historiographical approach. It not only allows us to engage directly with the medium in order to consider what it can offer, but it also entails the pursuit of practical answers that can be tested and expanded upon, so it can allow us to see how a deconstructionist inspired historical video game could work.

3.2.b Interdisciplinarity

As a PhD dissertation that has been developed and supervised across multiple academic departments and fields, the concept of interdisciplinarity has been embedded in this research since the beginning. I situate this research within the field of historical video game studies that touches upon the disciplines of history, game studies, and cultural studies. But in addition to this, as a doctoral thesis associated with the School of Education and Social Work and funded by the Sussex Humanities Lab, it has also been stimulated by the fields of social science, informatics, design, and digital humanities. Moving through all these areas has been a constant struggle. The object of study, the approach taken, and even the core research questions, have shifted on several occasions, attempting to determine the core audience to which this research addresses.

Consequently, design was not the only focus for the methodology of this study. As I explained in the literature review (2.4), in order to acknowledge the possibilities that historical video games offer, I also wanted to consider their perception and reception by players. In this regard, the methodology of ‘participatory design’, from the field of Human-Computer Interaction, served as guidance. Participatory Design is a set of

theories and practices that relate to end-users as full participants in activities leading to the creation of products (Muller, 2008). This methodology aims to actively involve users in order to understand the context of interaction, but also to explore opportunities for change and acknowledge end-user's necessities (Spinuzzi, 2005, p. 165; Bratteteig *et al.*, 2013, p. 138; Bratteteig and Wagner, 2014, p. 16). In the case of this research, I was not aiming to attend specific needs from end-users nor developing a final product with real application, as participatory design usually entails (Robertson and Simonsen, 2013, p. 2). Instead, I looked at Participatory Design in order to identify different methods and strategies for gathering information on the perception of historical video games.

I used Participatory Design for organising design workshops with history students to see their engagement with historical video games and consider what could be done with the medium. Particularly, I relied on a tripartite scheme looking at what people say, what they do, and what they make (Sanders, 2002, p. 4), and used workshop tools and techniques from participatory design that relies on three types of activities: making, telling and enacting (Sanders, Brandt and Binder, 2010). The workshops informed the design of the prototype and allowed to explore possible designs from multiple perspectives and to assess the achievements and limitations of the design experience. The workshops also guided the research overall, by bringing relevant reflections that later became core arguments. Existing theoretical frameworks regarding historiography and video games have mainly relied on analytical approaches to tackle this topic (Uricchio, 2005; Chapman, 2016a). By integrating a design approach that also considers people's perception and reception of historical video games, I wanted to propose a wider approach and contribute to the field by looking at alternatives beyond the analysis of existing video games.

3.3 Research Context

As stated in the previous section, in order to inform and evaluate the design of a historical video game prototype, this research also integrates the analysis of people's perception and reception of historical video games. This means that I had to establish a target group of participants and a context of study where data gathering took place. For this research, I decided to focus on the context of UK university education. I had two reasons for this. First, this research engages directly with historiographical concepts that might not be required at other education stages. Critical engagement with historiography is usually

embedded within university history modules. For example, at the University of Sussex the structure of the history bachelor's degree programme encourages students to gradually engage with historiography and to apply this abstract knowledge to specific historical debates and periods (University of Sussex, 2016). For this reason, I considered that the context of university education was more likely to prompt historiographical engagement and debates. Second, while there is research on historical video games in the contexts of primary and secondary education (see 2.4.b), little has been done regarding university contexts (Devlin-Scherer and Sardone, 2010; Houghton, 2016) and regarding video games as scholarly tools that could be used for academic research (Shaffer *et al.*, 2005; Spring, 2014). As mentioned in the literature review (see 2.2.b), there are only a small number of research projects that have emerged in the past years, like *Sailing with the Gods* (Blakely, 2016, 2018), the project "auralisation of archaeological spaces" (Zentralinstitut der Humboldt-Universität zu Berlin, 2018), or various historical text adventures (Morley, 2019a, 2019b; Coyne, 2017a, 2017b; McCall, 2017, 2018), that could be labelled as scholarly games in the field of history. Such lack of studies also motivates my interest in this line of research, as it is a context and approach that could provide new insights.

This research took place within the University of Sussex, and all the data was gathered within this institution. In this sense, practicality was also a consideration when picking this context, as working within campus facilitated recruitment and organisation. Participants in this research were university students and lecturers from different disciplines with interests in history and video games. Originally, I only intended for students of history modules to take part in the research. However, along the process I considered that a broader perspective would be beneficial and decided to include lecturers and students from other disciplines. Consequently, the sample of participants for this research is heterogeneous, as they came from a diverse pool of expertise. Their only commonality was an open interest in history and video games. Despite this, most participants (23 out of 26 in total) were either students or lecturers from history modules. Moreover, the most relevant group of participants (18 out of 26) were postgraduate students from the Postgraduate Certificate in Education programme for history teaching (PGCE). The group of PGCE students was the most accessible one for both stages of the research that required participants' feedback, as the lecturers from such modules were most interested and kind towards this project and helped with the recruitment. Also,

including PGCE students allowed me to bring further considerations on historical video games and history learning, as these participants were particularly concerned with this topic. Thus, despite the limited size and the diversity of the sample, the data that they provided was of direct relevance for the development of this project. I give further specificities regarding participants' backgrounds in the next section, when discussing each of the phases for this research.

3.4 Research Phases

As explained earlier, this is a design-based research that aims to generate knowledge through the process of designing a prototype. As such, I divided the research into three distinguishable and consecutive phases that mimic a design process. These phases are labelled as: workshop phase, design phase, and evaluation phase (see Figure 7). Each phase entailed different methods and types of qualitative data that I present in this section.

Phases	Timeline	Objectives	Methods	Type of Data
Workshop Phase	First Quarter Year 2	<p>To identify people's engagement with historical video games, their historical narratives, and its design.</p> <p>To identify characteristics in historical video games that could be used for developing a historical video game prototype</p>	Focus groups, design activities, play sessions.	<p>- Participants' debates and conversations</p> <p>- Participants' design documents</p>
Design Phase	Year 2	To design and create a historical video game prototype informed by, and aimed towards exploring, a deconstructionist historiographical approach.	Play-centric design, Critical play.	<p>- Design documents</p> <p>- Prototypes</p>
Evaluation Phase	First Quarter Year 3	<p>To identify people's engagement with the historical video game prototype created and its historical narrative.</p> <p>To evaluate the capabilities of the prototype for encouraging historiographical debates and recognise flaws and issues in the design that could be improved in further iterations.</p>	Surveys, focus groups, play sessions	<p>- Participants' debates and conversations</p> <p>- Survey answers</p>

Figure 7 - Research phases

3.4.a Workshop Phase

I set the workshop phase in order to gather data on how people engage with historical narratives and historiography in historical video games. It served the purpose of assessing people's engagement with historical video games and build a general understanding of the perception of this medium and the possibilities that it entails. I used this data to inform the design of a video game prototype at a later phase.

To gather this data, I organised several design workshops that included activities and discussions around historical video games. These workshops took place during the first quarter of the second year of the PhD. The idea behind a design workshop came when

considering how to approach the design of historical video games, and how the perception of historical video games might change when engaging with the medium from a design perspective. In these design workshops participants were prompted with topics, questions, and cooperative playful activities to generate debates about historical video games and design a video game based on their discussions.

The techniques and methods that I used in the design workshops were taken partially from participatory design examples and partially from my experience with cooperative learning and game design workshops. My goal was to ensure that all participants had the chance to share their thoughts, and that the data generated came from different perspectives. Because of these, participants of the design workshops were arranged in small groups of three to five people to guarantee that everyone had a chance to talk. To bring multiple perspectives about video games, participants engaged with three different types of activities: debate activities, design activities, and play activities. In each one, participants approached historical video games differently, through debates, through design, and through play. These three types of activities were inspired by participatory design, and aimed to explore: what people say, what they make, and what they do respectively (Sanders, 2002; Sanders, Brandt and Binder, 2010). Finally, to foster historiographical discussions among participants, I introduced two topics during the debate activities, diversity and subjectivity, that tended to appear during the pilots of the design workshop and proved to be useful to accessibly and indirectly encourage historiographical debates. Although some of the questions used to prompt debates revolved around these two topics, I mainly used open questions, that aimed to let participants develop and freely discuss their own ideas.

The activities for the design workshops are summarised in the following chart (see Figure 8). I have added more information about each activity in the appendices (see 10.2), with detailed descriptions and reasoning for each of the questions and materials used.

Activity		Description	Objectives (within the workshop)
Debate activities	<u>Conversation starters</u> (see appendix 10.2.e)	Organised in small groups, participants were given cards with conversation starters consisting of 5 questions. Afterwards, all participants' groups shared their discussions to make a list of common points.	<ul style="list-style-type: none"> - Familiarise with each other. - Openly share their experiences with historical video games. - Openly discuss about history's depiction in historical video games, by introducing the topic of diversity.
	<u>Text commentary</u> (see appendix 10.2.f)	Organised in small groups, participants were given a history-related text extracted from historical video games, and a set of questions to analyse. Afterwards, all participants' groups shared their discussions to make a list of common ideas.	<ul style="list-style-type: none"> - Engage with historical content in historical video games. - Discuss about history's depiction in historical video games, by introducing the topic of subjectivity.
Design activity	<u>Designer role-play</u> (see appendix 10.2.g)	Organised in small groups, participants assumed the role of video game designers with the goal of developing a conceptual design of a historical video game based on a given theme and inspired by their previous discussions. Participants had to: generate ideas using brainstorming and sticky notes; discuss and write down an outline of their video games; and draw conceptual sketches of their designs. Afterwards, all participants' groups presented their designs and explained how they addressed contentious topics.	<ul style="list-style-type: none"> - Engage with formal aspects of historical video games by crafting a historical narrative. - Expand on previously discussed aspects by attempting to integrate them in their designs. - Discuss, design, and share the concept for a historical video game.
Play activity	<u>Historical video game play session</u> (see appendix 10.2.h)	Organised in small groups, participants got to play selected historical video games. Afterwards, they shared their thoughts on the video games they played and compare them with their own video game designs, in terms of how they approached history differently.	<ul style="list-style-type: none"> - Engage with video games from the perspective of players. - Compare their designs with existing historical video games to see how they tackled discussed aspects.

Figure 8 - Design workshops' activities

In total, three design workshops were carried over at the University of Sussex with the participation of undergraduate and postgraduate students from the university (see Figure 9). The call for participation did not require any previous knowledge of video games. It encouraged anyone with interests in history and video games to participate (see appendix 10.2.a). I set a criterion to ensure gender diversity in case participation exceeded expectations, aiming towards a 50% of women and 30% of students educated in the UK. However, as participation did not exceed this expectation, such criterion was not applied.

Recruitment for the first and second design workshops was carried three weeks prior to the event through institutional email, shared by the School of History, Art History and Philosophy to all its undergraduate students, as well as through specific history modules ("Post-Punk Britain: 1975 - Present" and "Historical Controversy" and "Past and Present: The Social Network and History"). The first workshop had three participants and was run accordingly. However, the second workshop only had one participant, and I decided, with the participant's consent, to run an interview instead, going through the same topics planned for the workshop. While working with undergraduate students of history modules was the initial plan, after this experience I resolved to extend the selection criteria to ensure participation. For the third design workshop, recruitment was aimed towards history PGCE students, contacted through institutional e-mail and thanks to the support of the PGCE lecturers. Nine participants joined the third workshop and completed the dataset. These groups of participants also proved to be more diverse and knowledgeable in historiography, which favoured the outcome of the workshops. All data gathered regarding participants' background can be found in the appendices (10.3.a).

Iteration	Total participants	Participants' background	Activities ran
<i>First workshop</i>	3	Undergraduate history students	- Conversation Starter - Designer role-play
<i>Second workshop</i>	1	Undergraduate history students	- Interview - Text commentary - Historical video game play session
<i>Third workshop</i>	9	PGCE students	- Conversation starter - Text commentary - Designer role-play - Historical video game play session

Figure 9 - Design workshops' participation

I collected data from participants' discussions and answers, as well as from their engagement with the design activities. I used dictaphones and cameras to record the sessions, and also took notes while participants debated. Participants also made use of the provided paper sheets and sticky notes to write down their ideas and video game designs. The data from the design workshops consists of participants' debates and conversations, and of participants' design outlines (see appendix 10.3.b). I decided to do a partial transcription of participants' debates in order to speed up the analysis process. A full

transcription was made difficult by the overlapping of participants' discussions in the workshop setting. However, as there was no intention of doing a discourse analysis, and the data sample was small, I considered coding over the voice recordings and only transcribing conversations that were relevant and clear in the recordings. I focused on what they discussed, made, and on how they reacted when playing, in order to account for different types of engagements that could generate different perceptions of historical video games and highlight its potential. A sample of this partial transcription can be found in the appendices (10.3.c). The analysis of this data can be found in chapters 4 and 5.

3.4.b Design Phase

The design phase set out to analyse how a deconstructionist historiographical approach could inform the design of a historical video game, and to define and implement characteristics of historical video games that could highlight a deconstructionist historiographical approach. It served the purpose of assessing the formal aspects of historical video games from a practical perspective, experimenting with, and testing, the possibilities of the medium for exploring deconstructionist history.

To gather this data, I engaged in the design and creation of a historical video game prototype, informed by the outcome of the workshop phase, as well as previous literature on deconstruction, video games, and design. The design phase took place in the last ten months of the second year of the PhD. This historical video game prototype aimed to convey a deconstructionist historiographical approach, implementing any characteristics that the medium could offer.

I relied on several game design strategies as guidelines throughout the process, trying to find new approaches whenever it was needed. I engaged with play-centric design (Fullerton, 2008b, pp. 14–15) early on in order to test: core game mechanics, or intended interactions; and rules, conditions that give meaning and purpose to the mechanics. It led to the production of several low-tech prototypes, mainly involving physical card games. I further iterated around them, trying out different possibilities. At a later stage, I included the critical play approach in order to move beyond mechanics and work with other characteristics of video games. The core of this approach is to unveil, acknowledge, and explore the social, cultural, or even political themes that are integral to video games (Flanagan, 2009, p. 6). As a design approach, it implies working around specific topics

and using all elements available from the medium to create a critical engagement with such theme (Coulton and Hook, 2017, p. 104). This allowed me to engage with imagery, sound, storytelling, and other characteristics of the medium, while attempting to align them towards a deconstructionist historiographical approach.

Finally, I must address the material and intellectual constraints of the design. Constraints that guaranteed a fast and straightforward development were required due to the time limitations set for the design phase. The video game prototype was designed and created in the span of ten months, and all the aspects of this prototype, including design, code, and assets, were made only by me, with eventual advice and testing support from PhD supervisors and fellow colleagues. Regarding hardware and software, I decided to work towards a PC video game using the Unity video game engine (personal edition), available free assets, and 2D aesthetics for the visual designs. This was due to practicality, availability, and my own expertise using this type of software. During the design process further constraints appeared, including a local multiplayer setting and the limitation to video game controller input in order to simplify the evaluation phase.

This design phase had three distinguishable stages that are summarised in the following chart (see Figure 10). All data generated through this phase, including descriptions and images of the different prototypes, are included in the appendices (see 10.4, 10.5, and 10.6).

Design stages	Description	Duration	Objectives (within the design process)
Early design concepts	The first design stage in which I aimed to draft a basic concept for the historical video game prototype, after testing different core game mechanics and rules that could highlight a deconstructionist historiographical approach.	2 months	<ul style="list-style-type: none"> - Analyse workshops' outcomes and relevant literature. - Define core design principles. - Develop and test low-tech prototypes with early concepts.
Early video game prototypes (alpha)	A second design stage where I tried to translate the previous core mechanics into a video game format, aiming to identify further characteristics of historical video games that needed to be addressed.	3 months	<ul style="list-style-type: none"> - Develop and test rapid video game prototypes. - Identify further characteristics to address. - Generate base outline for the final video game prototype.
Final video game prototype (beta)	A final design stage in which the final video game prototype was created using the results from the previous stages.	5 months	<ul style="list-style-type: none"> - Develop and test final video game prototype.

Figure 10 - Prototype design stages

While the design phase produced a final historical video game prototype, it should be highlighted that the outcome of this phase also includes all the data that the design process generated and the insights that it prompted. The data from this design phase is comprised by several design documents and assets (see appendices 10.6.b, 10.6.c, 10.6.d), a design journal (see appendix 10.6.a), as well as the prototype versions created (see appendices 10.4 and 10.5). I have focused on this data because it allows to see the whole design process in detail. The analysis of the data goes through all the design process, evaluating how the design and implementation was done and assessing to which extend the characteristics of historical video games that were used in this video game prototype were adequate to convey a deconstructionist historiographical approach. I also reflected afterwards on some of the wider issues that I encountered through the design process. The analysis of this data can be found in chapter 6.

3.4.c Evaluation Phase

I set a final phase of the research in order to evaluate the historical video game prototype created. The aim was to see how people engaged with, and perceived, a historical video game with a deconstructionist historiographical approach, what thoughts and debates it could generate, and what they could say about its historical narrative and historiographical

approach. I was also aiming to evaluate how the prototype managed to carry and share the historiographical approach, and if it could prompt historiographical criticism.

In order to gather this data, I organised several evaluation sessions with participants, that featured a play-session of the final prototype combined with two surveys (before and after playing) and a focus group discussion. These evaluations took place during the first quarter of the third year of the PhD. The idea behind these evaluation sessions was to observe the perception towards the prototype, identifying which historical and historiographical aspects were perceived and interpreted by the participants, and whether the prototype encouraged historiographical debates. Thus, beyond evaluating the prototype, I also wanted to evaluate the potential of deconstructionist historical video games for engaging with and encouraging historiographical discussions.

In terms of methods, I used a similar approach than with the workshop phase, relying on focus groups and play sessions organised in small groups. This guaranteed interactions among participants and ensured that everyone had a chance to share their thoughts. The focus groups were semi-structured. I relied on open questions that aimed to prompt critical debates between participants. These questions referred to: how participants felt about the core mechanics of the prototype; how they felt about the prototype's engagement with history; and how the prototype could be used for learning history. This later question was added considering the professional background of most participants and their interests. Although the prototype was not intended to work as an educational video game, I considered that this question could encourage participants' discussions.

Beyond these activities, I also added two surveys, before and after playing, that complemented the data with individual opinions about the prototype and allowed to make more specific questions. The pre-play survey focuses on gathering further data on participants' backgrounds and knowledge about history, video games, and historiography. Initially, I intended to deduce further conclusions from these questions, in terms of how different audiences might react to different ideas. However, after considering the size of the sample and the confidentiality with participants, I decided to use them only for illustrating participants' backgrounds. The post-play survey asked participants about concrete aspects of the prototype, using Likert-scale type questions, in order to see how the intended aspects used were liked or disliked by players, and to rate their effectiveness

in conveying a deconstructionist approach. To complete the post-play survey, there were two open questions that let participants share their personal feedback directly.

The activities of the evaluation session are summarised in the following chart (see Figure 11). I have added more information about each activity in the appendices, with detailed descriptions and reasoning for each of the questions and materials used (see 10.7).

Activity	Description	Objectives (within the evaluation)
Pre-play survey	Brief survey before the play session (see appendix 10.7.d).	- Gather information on participants' backgrounds and ideas about history, video games, and historical video games.
Play session	In groups of 4-5 people, participants played the historical video game prototype designed during this research. They only were able to play it once, completing one round that took about 15 minutes. Instructions were displayed via in-game cutscenes. A printed sheet with instructions and objectives was also available for participants in case they needed it.	- Document participants' engagement with the video game prototype, noting their interactions with the prototype and the conversations among them.
Focus group	In groups of 4-5 people, participants discussed their thoughts about the historical video game prototype. I relied on a set of questions to encourage participants' conversations: - Do you encounter difficulties while playing the video game? - Do you think this game teaches something about history? And what that might be? - Do you think the in-game interactions resemble historical practices?	- Identify participants' thoughts about the prototype's historical narrative and historiographical approach.
Post-play survey	Brief survey after the play session. I used 'Likert scale' type of questions to ask about general feedback on the prototype, and about specific aspects that I wanted to evaluate. At the end I included essay type questions for participants to openly share further thoughts (see appendix 10.7.e).	- Gather information on participants' reception of the video game prototype, in terms of their general reception of it, as well as their evaluation of specific aspects such as: storytelling, visual design, mechanics, and historical narrative.

Figure 11 - Prototype evaluation's activities

In total, three evaluations were carried out at the University of Sussex with the participation of undergraduate and postgraduate students and lecturers from the university (see Figure 12). As previously, the call for participation did not require any previous knowledge about video games, and rather encouraged anyone interested in history and video games to join. The recruitment was mainly targeted towards history PGCE students, as this was the most prominent group during the design workshops and the one that

generated most debates. The call for participation was shared via e-mail with PGCE students and lecturers directly, as well as with previous workshop participants, and with undergraduate students of the School of History, Art History and Philosophy. However, to ensure participation and consider different perspectives, I decided to extend the call of one of the evaluation sessions to all undergraduate and postgraduate students and lecturers. For this purpose, I distributed signs across the university days before the event and it was also shared online to related student societies, including the ‘History Society’ and the ‘Video gaming society’. In total, there were thirteen participants involved in the evaluation, including: six history PGCE students; two history PGCE lecturers; one participant from the previous workshop; one lecturer and one postgraduate student from game design background; one lecturer from classics; and one undergraduate student from applied sciences. The most prominent group, PGCE students and lecturers, formed evaluation groups one and two, while the rest of participants with diverse disciplines joined the third group. Such diversity provided contrasting perspectives. All data gathered regarding participants’ background can be found in the appendices (10.8.a).

Iterations	Total participants	Participants’ backgrounds
<i>Evaluation group 1</i>	4	PGCE students and lecturers
<i>Evaluation group 2</i>	5	PGCE students and lecturers
<i>Evaluation group 3</i>	4	Undergraduate and postgraduate students and lecturers

Figure 12 - Prototype evaluation's participation

The data from the evaluations consisted of participants’ debates in the focus groups, their conversations while playing the prototype, and their survey answers. I used dictaphones and cameras to record the sessions, and a laptop, a projector, and four video game controllers to run the prototype. The data was recorded and partially transcribed afterwards. As with the design workshops, there was no intention of doing a discourse analysis and the data sample was small, so in order to speed up the analysis process I decided to code over the voice recordings and only transcribe conversations that were relevant and clear in the recordings. Both, participants’ discussions during the play session and the focus groups, were included in this partial transcription. Surveys were scanned and added to the data for analysis (see appendices 10.8.c and 10.8.d). I also took

notes while participants debated. The focus for the analysis was on identifying participants' thoughts about the prototype and their interactions while playing. This focus allowed me to see if the prototype encouraged historiographical debates and how certain aspects of the prototype were useful for conveying the deconstructionist historiographical approach. A sample of this partial transcription can be found in the appendices (10.8.b). The analysis of this data can be found in chapter 7.

3.5 Data Analysis

The data produced throughout this research was heterogeneous, ranging from focus groups and surveys to design documents and gameplay recording. It required a flexible method of qualitative data analysis that allowed to consistently engage with all types of data. This was possible by applying 'thematic analysis', "a method for identifying, analysing, and interpreting patterns of meaning ('themes') within qualitative data" (Clarke and Braun, 2017, p. 297). Thematic analysis implies identifying codes and themes within the data and establishing a relation between them through a structured process. It can be applied within many theoretical frameworks and research paradigms, and offers flexibility regarding research questions, methods of data collection, sample size and type, thus allowing to identify patterns within and across multiple type of data. It also operates with inductive and deductive approaches and can be used to acknowledge manifest and latent information (Clarke and Braun, 2017, p. 298; Nowell *et al.*, 2017, p. 8). This approach has proven useful for other studies involving design-based research (Emanuel and Stanton Fraser, 2014; Marcotte and Khaled, 2017), allowing to engage with the design process and design documents, as well as with data resulting from the evaluation of prototypes.

I gave special attention to trustworthiness and accuracy during the data analysis process, following advice and guidance on best practices for applying thematic analysis (Nowell *et al.*, 2017). Thematic analysis consists of 6 steps:

- (1) Become familiar with the data, and annotate initial thoughts;
- (2) Create "codes" and reduce data, connecting codes with research questions. Codes can be phrases, words, or any element that catches our eye. Code can be 'grounded' or 'a priori', in this thesis there is a mix of both;

- (3) Combine codes into themes or categories (e.g. perception of history);
- (4) Connect themes with the data and the theory. Present how these categories relate to the data collected and to the research questions;
- (5) Describe the themes and analyse how they contribute to understanding the data;
- (6) Write report, describe the results explaining why these themes are useful.

It is important to describe all the process with enough detail, from data collection to coding, so the relation between the data and the final outcome can be judged (Ryan, Coughlan and Cronin, 2007, p. 742). I carried the data analysis during and after each of the phases described above. With the design workshops and the evaluations, I took notes during these events, pointing at impressions from participants' engagement. With the design phase, I created several design documents at different stages. Initially, design maps with different guiding principles and ideas served to illustrate the process. While designing the low-tech prototypes, I moved into a standard model to describe each prototypes' characteristics and aspects to evaluate. And starting with the digital prototypes, as well as with the final prototype, I kept a diary with the changes included in each version and annotations about them.

After each of the phases, I proceeded with partial transcriptions and initial coding of participants' feedback and design notes. A software for qualitative analysis, NVivo, was implemented while processing the data. This tool facilitated the application of this method of analysis and allowed to generate comparisons and differences across the multiple phases of the project. Furthermore, as each phase of the research was informed by the outcome of the previous one, the analysis of the data needed to be progressive and functionally applied through the research. As a result, some general themes and ideas can be traced through all the thesis.

During the writing process, the codes for the data were rearranged several times around multiple themes. Some of these themes were deducted from the data, while others were informed by existing literature, combining both approaches in the end. Moreover, the research questions and a set of derived sub-questions were used to guide the analysis. In order to comprise the arguments and create a cohesive thesis, much of the data had to be

reconsidered during the writing process, relying only on the information that was relevant for the core research question.

3.6 Ethical Considerations

As with any type of research, this one also generated ethical considerations. There are two dimensions to address in this case. First, as a research involving participants and qualitative data gathering, there were considerations regarding addressing participants. Second, as a research involving the creation of a creative work, there are considerations regarding the intentionality and authoring of such work.

Regarding participants, I have followed traditional concepts for conducting ethical social science research: informed consent, confidentiality and anonymity, and publication access (Hitchcock and Hughes, 1995, pp. 51–52; Gray, 2004, p. 235; Piper and Simons, 2005, p. 56; Bryman, 2012, p. 135; O’Leary, 2017, p. 41). On a practical level, I relied on the University of Sussex ethical guidelines (2015), with special attention during the workshop and evaluation phases of the research that included engagement with participants. The participants in this research categorised as ‘low risk’: they were above 18 years old and able to consent for themselves. I ensured that participants were well informed about the nature and objectives of the research, their role and the use of their information, the activities in which they would be involved, the video and voice recordings and the transcription of their feedback, the recording of their gameplay, and their right to withdraw their collaboration and exclude their data at any given moment. In this regard, an information sheet and a consent form were prepared stipulating all these points (see appendices 10.2.b, 10.2.c, 10.7.a, and 10.7.b) and participants were required to read it and sign it to prove their agreement. The anonymity of their data was also stipulated. All of participants’ names have been changed. Although participants might recognise their own commentaries quoted in this thesis, I am sure that other readers will not be able to identify their authorship. It was strictly clarified that the use of participants’ data and the video game prototype produced during this research will be exclusive for this study.

My position as researcher during the process also implied scrutiny, especially regarding the dynamics of power. With a research topic that tackles historiography, my own position towards history plays a crucial role. I understand history mainly as a narrative about the

past, subscribing a deconstructionist/postmodern ontology and epistemology, with my main interest set towards how such narratives are created, how they permeate in the society, and what kind of discourses are involved in such processes. In some instances, this relation between my own position and the theme was useful. For example, it helped me to design and craft the historical video game prototype, as I had already interiorised key ideas and concepts about this historiographical approach. However, in other instances, during the workshop and evaluation phases that entailed a direct interaction with participants, I had to carefully consider my involvement, aiming to ensure that the data gathered was coming from the participants' own voices, while also addressing the core questions of the research.

This implied thinking about how the activities were structured and what types of questions were made. I wanted to ensure that participants engaged with historiographical discussions, and preferably around topics related to deconstructionist history; but at the same time, I did not want to guide such debates embedding my own position. For the design workshops, I selected two themes, 'diversity' and 'subjectivity', that could force historiographical debates while being common and accessible. I did the same for the workshops' design activities, selecting themes that will ensure participants' engagement with historiographical ideas. I tried avoiding setting a position regarding these topics, but I recognise that just presenting these topics entails a certain positioning, and that I held a power towards controlling the feedback received. The same can be said about the evaluation of the prototype, where I had to choose open questions for the focus groups to encourage participants to discuss the prototype. This was even more challenging, as I wanted to see how the prototype led to historiographical discussions, but without forcing such debates.

Unexpectedly, most participants either engaged with these topics and questions before I introduced them or brought up unexpected discussions and positions. I was particularly powerless in these situations, unsure of what kind of ideas they would discuss or how they would react to the prototype. Both, the design workshops and the evaluation, ensured that participant feel empowered in certain moments: when discussing among themselves without my presence, when designing their own historical video game, and when acting as critics of the final prototype. This led to a constant shift in power balance throughout these activities that generated unexpected feedback. To integrate this data, that does not

necessarily relate to my original questions or expectations, was a challenge; but at the same time, it was reassuring to see that the activities did not coerce participants towards deconstructionist history and that they freely demonstrated their positions. As in any research involving participants, it generated unexpected data that informed the research beyond its originally intended hypothesis.

Regarding the historical video game prototype created in this research, it is important to note that to design video games entails a moral activity. As Sicart (2005) argues, “the values consciously or unconsciously embedded in the design determine the basics of the ethics of the game, and cue the experience and affordances of the user(s) of the system.” The experiences represented within a video game need to be considered under an ethical lens, being aware of the consequences of such representations. In the case of the prototype for this research, there was an intentional attempt to convey a specific historiographical approach within it. Such intention was always informed to participants in order to ensure the honesty of the research. However, the prototype also ended up including ambiguous elements that not all participants identified while playing. Subsequent clarifications about the prototype’s intentionality allowed to avoid problematic interpretations.

Another point of contention is the authoring of the prototype created during this research. Research that involve co-production with participants entail particular ethical concerns regarding the equitable and symmetrical relationships between researchers and participants, especially regarding the acknowledgment and recognition of each contribution (Berriman, Howland and Courage, 2018, p. 141,160). While I did not follow a participatory design approach, where multiple stakeholders participate during all the design and creation process, the stages in which I relied on participants to inform the design of the prototype were highly informative and relevant for the outcome. During the design process I had to negotiate between ideas that I previously had or were generated from the literature, with those that participants brought to the design workshops. This implied a noticeable tension, as sometimes it felt adequate to rely on participants’ feedback as part of the research process, while other times a fear of plagiarism or unaccredited use of creative ideas arose. Aware of this, I decided since the beginning of this project to recognise participants as collaborators in the creation of the prototype, as their feedback helped to mould the ideas embedded into it. On participants’ request, their

names or pseudonyms were accredited in the prototype's credits, in order to acknowledge their involvement and contribution (see appendices 10.2.d and 10.7.c).

Furthermore, as the research included creating a playable prototype, it was also important to decide how such product would be shared and addressed. Due to the aim of the prototype produced, and its contentious authoring, I felt the need to ensure that the video game would be accessible to everyone and that it would not be used for commercial purposes. A digital version of the video game prototype is available online for free and can be publicly accessed, under a Creative Commons license (Attribution-NonCommercial-NoDerivatives 4.0 International) that will prevent any commercial uses of the prototype or derivative software (see appendix 10.6.a).

3.7 Advantages and Limitations of the Methodology

The methodology that I have proposed for this research entails an invitation to critically and actively explore historical video games and their relationship with historiography. Drawing from an interdisciplinary approach, this methodology works towards a contribution to the field of historical video game studies, demonstrating the possibilities offered by mixing theory and design. In this sense, I must highlight the advantages of design-based methodologies, like RtD and participatory design, for understanding the medium of historical video games.

RtD is a versatile approach that allows to better understand the practice of design and the products that we can create. It focuses on the design process to generate a detailed recount of the issues, decisions, and solutions that such process can entail. Doing so, we can further understand the formal aspects of historical video games and the unique process of creating a historical narrative using this medium. Engaging with design implies a learning curve, not only in terms of technical aspects such as coding and editing software proficiency, but also in terms of theory and the different design approaches and strategies that constitute this practice. However, the methodology of RtD also offers an open approach towards design, where different design methods can be applied and tested without any further strict requirement. This goes in line with the general philosophy behind the design field, where creativity and experimentation are favoured over closed and structured methods. This makes this approach accessible even for newcomers.

But beyond the practice of design, RtD is convenient for evaluating the exploration of philosophical and historiographical concepts within video games, because it encourages to transform abstract and theoretical aspects into concrete and practical representations, stretching out comprehension of such aspects in the process. Within the field of historical video game studies many researchers have claimed the need to embrace an active exploration of the medium. Whether it is Uricchio's call for exploring historiographical epistemologies through game design (Uricchio, 2005), Spring's proposition for developing historical scholarly games (Spring, 2014), or Chapman's emphasis on examining the "form" over the "content" (Chapman, 2012). Because of this, I also believe that any movement towards a design-based approach will benefit our understanding of historical video games and serve as a positive contribution to the field.

On the other hand, participatory design has also played a role in this methodology, enriching the design experience by adding considerations from end-users. People's perception of historical video games not only informed the prototype's design and evaluation, but also served to craft and guide the main arguments of the research. In this sense, finding an adequate sample of participants was an important task. The final sample presented is heterogeneous, with participants from multiple fields involved in the research. I also intended to have participants from the design workshops return to evaluate the prototype, but only one returning participant from the workshops joined the evaluation. These factors limited the range of conclusions generated from this research in terms of reception. However, for the purpose of the design-based research, the heterogeneous sample allowed for integrating feedback from different perspectives, and the inconsistency between workshops and evaluation generated unexpected criticism about the prototype. Overall, the addition of participatory design strengthened the research experience and highlighted the interdisciplinarity of the field of historical video games, where reception, design, and game analysis can get mixed for a greater purpose.

This stance between research and design can also carry some limitations that require special attention to overcome. First is the challenge of accounting for the "tacit knowledge" involved in any creative process like design (Godin and Zahedi, 2014, p. 10). Some design decisions may not have an argument behind them besides what may appear as an arbitrary creative choice, thus a rigorous retelling of the design process is needed in order to help overcome this. Second is the fact that RtD does not provide predictability

(Godin and Zahedi, 2014, p. 11). While it is aimed to better understand a design process, and in this case a medium, it is seen as a creative and subjective endeavour whose design process and outcome cannot be reproduceable or definitive. The design guidelines and insights generated are certainly limited to a particular design experience, yet this should not diminish the value of this approach in suggesting, imagining, and creating tangible possibilities. Third, RtD deviates from standard design methodologies and other design research approaches by highlighting the design process over the final product created. The goal of RtD is not set on generating a finished or commercial artefact, but on generating knowledge through the design experience. This can be seen as a limitation for some design practitioners, as the development of an end product tends to be the final goal. But in the case of this research, focusing on the process generated a type of knowledge that can be more familiar to humanities and social sciences, with a focus on data gathering and analysis rather than on technicalities and results.

This methodology is also constrained within a time frame that did not allowed for an extensive number of design iterations. Time constraints are always present in any research, but with design-based research, the schedule not only has to comprise literature reading and thesis writing, but also field work and data gathering, design outlines, prototyping, creation process, and evaluation. Furthermore, this methodology encourages iterative design, so repeating this creation process is also cherished. I recognise that, with a different schedule and time frame, the outcome of this thesis could have been different, and more aspects could have been explored. But regardless, these time limitations were known since the beginning, and the methodology was carefully considered to fit within the available time and produce an adequate result.

Finally, the interdisciplinarity of this methodology entails complexity. While the field of historical video game studies is already convoluted in its mix of history, game studies, and cultural studies, the addition of design opens another front. I have tried to bring together these fields, by using a design-based methodology as the core structure of this research. But tying the design aspects of the methodology to the humanities-oriented research questions proved to be a challenge at different points. The research process, the conventions, the language, and the aims can vastly differ from one discipline to the other. However, I do believe that adding design to the mix of historical video game studies can be beneficial. Exploring new perspectives opens new possibilities for research, and in this

case, design can give a better glimpse of the object of study and invite to think about video games as tool for academy research. But likely, more research and iterations using design-based methodologies will be needed in order to consolidate this alliance.

3.8 Chapter Summary

In this chapter, I have described the general approach followed through this research and presented a clear guide of the project.

I first discussed RtD as the core methodological approach, giving examples of its application and arguing its value for this study (3.2.a). RtD entails a design-based approach, that aims to generate knowledge by going through the process of designing and evaluating a historical video game prototype. It offers a way to formally engage with the medium of video games, by documenting the process of designing, creating, and evaluating a historical video game prototype and learning from it. I also talked about interdisciplinarity and the addition of participatory design as an approach that allowed me to look at people's perceptions of historical video games and use this data to inform the prototype's design (3.2.b).

I detailed the context of study, justifying my focus on university participants because of their engagement with historiography and the need to expand on university students' perception of historical video games (3.3). I have then outlined the different phases of this research: A workshop phase (3.4.a), where I conducted design workshops with university students to analyse their perception of, and engagement with, historical video games; a design phase (3.4.b), where I relied on the literature and the outcome of the design workshops to inform the design and creation of a historical video game prototype with a deconstructionist historiographical approach; and an evaluation phase (3.4.c), where I evaluated the prototype with university participants and analysed their engagement and perception of it. This structure prompted a diverse data-set, for which I decided to use thematic analysis as my qualitative data analysis methodology, using coding and themes to organise ideas through the different phases (3.5).

I also addressed ethical considerations around the process of gathering data from participants and designing a prototype (3.6), and the advantages and limitations of this methodology (3.7), stating that, despite the complexity of the methodology, the

possibilities that a design approach offers for engaging with historical video games are enriching, providing a unique perspective and new ideas to work with.

After explaining the methodology, in the next chapter I begin analysing the data generated in the design workshops.

Chapter 4. Engaging with Historical Video Games

4.1 Chapter Overview

In the previous chapter, I presented the methodology of this research. From this chapter onwards, I analyse the data obtained throughout the project. The objective of this chapter is to analyse the discussions and debates about historical video games held by the participants of the design workshops arranged for this project. During these design workshops, undergraduate and postgraduate students of history engaged with activities that encouraged debates around historical video games. Specifically, in this chapter I analyse discussions emerging from the debate activities and the play sessions. Doing so, I aim to consider how people engage with historical narratives and historiographical approaches featured in historical video games.

To do so, in the following pages I focus on: how participants referred to historical video games and what aspects of the medium they highlighted (4.2); how participants perceived historiographical approaches within historical video games (4.3); and what were their major concerns regarding historical video games in general (4.4).

4.2 Defining Historical Video Games

The design workshops offered an opportunity to investigate how players perceived historical video games and the historical narratives embedded in them. In this section, I focus on how participants talked about historical video games, outlining what characteristics of historical video games participants mentioned and how they referred to them, and analysing the implications that this has for their perception of the medium.

In general, all participants shared a common interest in historical video games. They made this patent through their discussions. And they also specified which aspects of historical video games attracted them the most. Some common aspects were complex storytelling, visually immersive settings, characterisation, available interactions, and enjoyment.

Starting with storytelling and settings, participants commented extensively on the use of these aspects to convey history. They distinguished between historical and fictional elements embedded in the stories and were both, critical and open, about this

differentiation. For example, participant PA3 noticed how video games are based more on well-known themes than on history, arguing that historical references are just something added to conceal a historical “vibe” to the video game. This mention is important because other three participants from different workshops also talked about “themes” in reference to a general conceptualisation of a historical context or period that may or may not have correlation with the past. These images of certain contexts are, for these participants, more akin to “themes”, perhaps in the sense of literature and popular culture, than they are to history or historical academia, and their only purpose is to set the narrative of the video game in the past. As PA3 stated: “it takes this cultural, popular cultural, interpretation of the past, into the game and adapts it to create this corky environment”. For participant PB1, video games tend to rely on generic references that help setting a recognisable context: “most people have an idea of Egypt, what it is, where it is, and the pyramid is just a call back to that context or setting”. This participant criticised the use of the past as a mere setting, referring to it as a superficial engagement with history. Participants PH3 and PD3 were more positive about these themed settings, mentioning that, by following the story players can get historical information and be “aware” of the historical background, and praising the possibility to craft complex stories with multiple outcomes.

Furthermore, participant PA3 and PB3 referred to video game series, like *Bioshock* (2K Boston, 2007) and *Fallout* (Interplay Entertainment, 1997), to comment on the use of history as inspiration for fictional settings. The combination of history and fiction was seen as appealing by participant PB3 in reference to *Fallout*: “I quite like the kind of 1950s build to it, and the futuristic style”. Similarly, participants PA1, PC1, and PA2 also referred to *Skryim* (Bethesda Game Studios, 2011) on the same note as a game inspired by “Nordic mythology”.

Other participants also pointed out that, while the stories may be fictional, they work in harmony with the “real world” locations. Participant PA1 commented: “It is interesting how (the video game series) *Assassin’s Creed* does that, because you play as a fictional character but in real world locations”. Four other participants also praised the reproduction of historical spaces in the video game series *Assassin’s Creed* (Ubisoft Montreal, 2007) as a feature that allows exploration and learning. In this sense, their

discussion of the stories within historical video games was multimodal, emphasising the audio-visual representations as part of the narrative.

Overall, they emphasised the storytelling element of historical video games as a key component for presenting a historical narrative and observed a conflict with fictional aspects that they considered having positive and negative implications. Video games' stories were mostly conceptualised as multimodal, going beyond textual devices, and with a special emphasis on its role for establishing the setting of the game.

The immersive capabilities of such stories and settings were explicitly highlighted by participants PA1 and PB1 as something important for the experience of the video game. More specifically, participant PA1 tied immersion with the idea of video games as “a form of escapism”. These ideas were also shared by participant PI3, who stated that the most enjoyable aspect of video games for him was: “the idea that I am somewhere where nothing matters, and you can turn it off after being there half an hour or an hour”.

The use of historical characters was also praised as appealing by participants PA2, PB1, and PC1. Even beyond explicit historical references, characterisation in video games was presented as an aspect that allows players to connect with the game's story. Participant PC1 hinted at this when criticising the lack of characters that she could relate to in video games: “growing up in a country that is predominantly white, you are constantly around images that tell you ‘this is normal, and you are not’”. This participant asserted the need for including characters with diverse gender, ethnic, and class traits, that more people can relate to.

Besides these aspects, participants also touched upon the interactions that historical video games allow when referring to video game mechanics and their relationship with the historical content. For example, participant PB1 commented that some historical video games allowed players to see “how history works, and see the forces of history in action, like in game mechanics”, suggesting a relation between mechanics and historical narratives. In this regard, the idea of counterfactual history in video games, broadly discussed in the literature (Uricchio, 2005; MacCallum-Stewart and Parsler, 2007; Apperley, 2013; Chapman, 2013c, 2016a), was also mentioned by participants. The possibility to “rewrite history” was mentioned by participant PA1 as a way in which historical games allow players to interact with historical contexts. This was particularly

appealing for this participant who stated his interest in video games that have historical settings but lack strong framing stories, such as video game series *Civilization* (MicroProse, 1991), because they allow players to create their own story. This possibility for counterfactual history was not conceived in relation with deconstructionist history, nor with the concept of historying. However, participants PC3 and PD3 hinted at the tensions between counterfactual and fixed narratives, recognising how some video games, like video game series *Total War* (The Creative Assembly, 2000), while allowing counterfactual explorations, also impose fixed historical narratives by using cut-scenes or pre-established objectives.

Participants also referred to enjoyment and fun as a key component of video games. This aspect mainly came as a topic of discussion in relation to mechanics, with participants PA3, PC3, and PG3 arguing that the priority was on having gratifying and fun mechanics and stating that video games were mostly for entertainment. In this sense, participants seemed to commonly agree that the inclusion of historical elements was secondary within historical video games. They conceptualised video games as something inherently fun, or that needs to be fun regardless everything else, and they also pointed at the relevance of enjoyment in the production and design of video games.

In this regard, participants showed awareness of the video game industry as something strongly tied to the narratives that video games can generate. Participants PA1, PB1, PC1, and PA3 commented on the financial pursuit behind most video games, arguing that generating a profit was the main objective behind the development of a product like this. Such contextualisation also brought up the topic of marketing and consumers, but most importantly, it highlighted the fact that the production of video games is subject to multiple stakeholders, and the historical narratives within them must compromise to multiple variables. Participant PC1 also mentioned the lack of diverse perspectives within such stakeholders, something that can be tied to participant PF3's comment on the anecdotic presence of historians as consultants in the development of *Battlefield 1* (EA DICE, 2016).

Despite these arguments on the importance of enjoyment and the lucrative aim of the video game industry, participants PA1 and PC1 talked about video games as being capable of more than entertainment. PC1 argued that video games hold a potential for dealing with current political and social debates, or with history learning. Participant PC3

also suggested this learning value when talking about the intentionality that is always behind video games. This suggests that, while contested, there is a realisation that historical video games entail more than just a form of entertainment.

Participants' familiarity with historical video games not only extends to the industry, but also to formal aspects of the medium. Participants used specific language and terminology to refer to certain aspects of video games, such as "mechanics", "interactions", "replayability", "first and third person" perspectives, "quests", "skills" and "skill trees", "factions", "win conditions", "character models", "classes", "abilities", "customisation", and "gameplay", to name a few. Most of these terms came up prior to the design activity, just when participants were discussing existing historical video games, showing that they are not only familiar with this specific jargon, but also that they actively use it for talking about the medium.

Overall, participants' engagement with the medium shows a familiarity with it. Their comments on storytelling, settings, immersion, characterisation, and mechanics suggests a recognition of historical video games as a complex medium that entails multiple modes of expression and formal aspects. Their comments on entertainment and the video game industry also suggest that they address historical video games mainly as a form of recreation that belongs to popular culture and mass media. And in this sense, they looked at historical narratives within historical video games as a supplementary element. From these comments, I recognise a certain tension between participants' conceptualisation of history and video games' ludic frame, as they clearly differentiate between historical and fictional narratives within the video game examples discussed. However, such tension also allowed them to highlight the context of production and consumption of these historical narratives and address their correlation with history depictions in other mediums such as cinema or comics. These discussions show participants' acknowledgement of the medium's capability for conveying historical narratives within specific formal and contextual constraints.

4.3 Historiographical Approaches

Continuing with the analysis of people's perception of historical video games, in this section I aim to see if, and how, participants addressed the historiographical approaches embedded in these historical narratives. One of the main goals that I set for the design

workshops was to encourage participants' debates around historical video games and historiography in order to observe how they addressed this relationship. As explained in the methodology chapter (see 3.4.a), the debate activities within the workshops (see appendices 10.2.e and 10.2.f). were focused towards two specific topics, diversity and subjectivity, used to indirectly engage with historiography and assure that participants discussed their thoughts on the matter. This strategy proved to be useful, with participants actively engaging with historiography and showing an awareness of the epistemological and ontological claims that they have found in historical video games.

I found examples of this awareness in the text commentary activity (see appendix 10.2.f), a debate activity where participants had to analyse a text from a historical video game. For instance, participant PA2 criticised some references about the Mayans' downfall in their text for being "still massively debated" and emphasised that there are several arguments about this topic. Participant PG3 was more precise pointing at the focus of their text about the home-front during WWI as a "social history" approach and mentioning that there was likely a different historiographical approach inspiring the video game in which this text appears.

Participants also differentiated between the historiographical implications that can be found within different video game genres. For example, when asked about how historical video games enable engagement with history, Participant PB1 stated that strategy video games allow visiting different places and periods while FPS games have a narrower focus and narratives. Participant PA2 also mentions a difference regarding historical accuracy, with games set on specific settings being more accurate, and strategy games like *Civilization* (MicroProse, 1991) having to make compromises due to the scale and the mechanics of the game. Likewise, PC3 recognised a difference regarding affordances, stating that a game like *Call of Duty* (Infinity Ward, 2003) forces a specific faction to win certain levels, while *Total War* (The Creative Assembly, 2000) allows you to even do things that did not happen in history. PB3 also mentions that elements of social history, that goes beyond warfare, can also be seen in strategy games. Finally, PB1 also noticed a difference regarding scale and perspective, stating that strategy games offer "a dominant narrative, a top down narrative", while games with a third- or first-person view allow players to interact more with other characters and see other perspectives.

These commentaries tie with Uricchio's (2005), Kee's (2011) and Chapman's (2016a) previous categorisations of historical video games, that suggest a connection between shooters and action/adventure video games with a "reconstructionist" approach to history, and strategy video games with a "constructionist" approach. It is of relevance that some participants were also able to identify these differences, connecting formal structures of video game genres with the historical narratives they present. Overall, this shows participants' awareness of historiography and their conceptualisation of history as narratives with multiple approaches and perspectives.

Among the participants, I have noticed that PGCE students that declared having a previous BA degree in history showed more engagement with first order concepts and introduced constructionist and even deconstructionist ideas to both, their debates and their video game designs. However, as the sample is small, I do not reflect further about these differences.

In general, all participants showed a recognition of different historiographical approaches embedded in historical video games, but these epistemological discourses appear to be superficial and amalgamated. A traditional conceptualisation of history prevails over the rest, with the attention centred around the factual, and without an ontological differentiation between "the past" and "history". Furthermore, I also identify tensions between what is seen as historical and what is seen as ludic when discussing about historiography. This can be seen from how participants' debates mainly revolved around the topics of: (1) accuracy and authenticity; and (2) authorship and intentionality.

4.3.a Historical Accuracy

The idea of historical accuracy was one of the most recurrent topics of discussion during the design workshops. This concept has been studied before in relation to historical video games, differentiating between 'historical accuracy', as the accurate representation of the past; and 'historical authenticity', as the perception of accuracy within a representation of the past (Kapell and Elliott, 2013, pp. 151, 361). I should note that participants favoured the use of the term historical accuracy in their debates, even when they might have referred to historical authenticity instead. At specific moments, the term accuracy was used adequately, to discuss factual information found in historical video games. But it was also applied to talk about what they broadly perceived as authentic or historical. In

order to avoid confusions, for this section, I decided to only use the term historical accuracy, as this was the one used by participants. However, I am aware of the differences between accuracy and authenticity, and I have made sure to highlight it whenever it seemed convenient.

Historical accuracy was first used by participants to explain their preferences for historical video games, positively and negatively. For example, PC3 used accuracy to appraise the games he liked: “I play a lot of strategy games, and I play the *Total War* series (...) It is somewhat accurately”. He also referred to *Battlefield 1* (EA DICE, 2016) as being “hilariously accurate”. In similar terms, PF3 mentioned *Sherlock Holmes versus Jack the Reaper* (Frogwares, 2009), “that was kind of historically accurate”. And PA2 criticised *Civilization* (MicroProse, 1991) in these terms: “It is not accurate necessarily. So far, it is O.K., but do not let me start of the problem with the Celts, why do they have Pictish warriors?”.

Participants’ discussions about historical accuracy specifically referred to the representations of certain elements. PB1 commented about *Assassin’s Creed* (Ubisoft Montreal, 2007) and the attempt to make the cities in the game as close as possible to reality. This was also shared by other participants:

PC3: The main thing I like about *Assassin’s Creed* games is the beautiful architecture.

PD3: And that was accurate, I think they did that well.

Similarly, talking about *Battlefield 1* (EA DICE, 2016), PA1 criticised the lack of historical accuracy in the weaponry. PG3 also talked about the accuracy of weaponry in video games pointing at how they serve as an instrument for the historical setting. In this regard, participants’ focus on visual details such as weaponry or the architecture, could support the already mentioned studies on accuracy and authenticity (see 2.4.b). Current research on players’ perception of historical authenticity suggests a tendency to focus more on the accuracy of small details than on the bigger historical narrative (Beavers and FitzGerald, 2016), and a reliance, by developers and publishers, on technology fetishism to ensure a feeling of authenticity (Salvati and Bullinger, 2013, p. 184). In correlation with these studies, I found participants judging historical authenticity based on the detailed representation of specific artefacts. For example, PC3 argued that, based on their

offer of weaponry, early entries of the franchise *Call of Duty* (Infinity Ward, 2003) were more historical: “you can play old *Call of Duty* games and they are actually historical, like, with all the utility stuff...”. I contend that this focus towards details and technology fetishism corresponds with participants’ considerations of history as a theme, discussed earlier in this chapter (see 4.2). Some participants suggested that historical video games draw inspiration from existing representations of history in popular culture rather than from academic research. In this sense, I endorse the idea of historical video games using a “box-ticking” approach (Lowe, 2009, p. 76): History as a theme could be seen as comprised by a series of references, including things like architecture or characters, but also topics and affordances, that need to be included to fulfil a certain expectation.

Participants also discussed prioritising accuracy over inclusiveness. PA2 argued that diversity in historical video games must be encompassed within the historical period: “You are limited with the time period and representing diversity at a time when it might be minimal or not tolerated”. PB1 also supported this idea highlighting the importance of introducing diversity “without sacrificing immersion and realism”. Similarly, participant PI3, after playing *Painters Guild* (Molina, 2015) during the play activity, commented that the video game was “diverse to a point it was inaccurate”, arguing that the game featured lesbians at a time when they were being punished by death. All this suggests that participants’ perceptions of accuracy are subjective, as they discussed it mainly based on their previous knowledge and interpretation of the historical context.

Some participants were also concerned about the accuracy of their game experience. PA1 and PB1 talked about a set for specific historical scenarios in *Total War* (The Creative Assembly, 2000) referring to them as interesting experiences. PA1 told his attempt to replicate “the real tactics” of a specific faction in a battle, and how he failed in winning the game by doing so. Despite this, participants seem to prioritise enjoyable mechanics over historical accuracy. For example, participants PA1 and PG3 recognised that video games prioritise entertainment over “historical accuracy” suggesting that there are some artistic liberties implied in historical video games. Participant PA3 also commented on how interactions that aim to be historically accurate may create tedious gameplay.

On the other hand, there were participants that disregarded the discussion around accuracy. For participant PD3, historical video games had historical value regardless of their accuracy, stating that: “even if they are not all accurate, they still have context (...)”

they give you a little bit more context, it makes it a bit helpful or unhelpful depending on how inaccurate, I guess”. For PF3 the issue is not regarding accuracy, but rather whether the game recognises that something is historical or totally fictional: “I do not think it is always explicit”.

In general, participants showed a major concern towards historical accuracy when discussing historical video games. Embracing the idea of historical accuracy indicates a belief in history as a faithful representation of the past. It implies a belief in the past as accessible, knowable, and representable. Such conceptualisation blurs the ontological distinction between past and history. However, I think the prevalence of this topic is not necessarily linked to participants’ conceptualisation of history, but rather to the broader discussion of historical video games. Participants used historical accuracy as a term to measure their perception of historicity within historical video games, sometimes even associating accuracy with history. Regardless of their personal historiographical convictions, I reflect that when confronting historical video games participants saw themselves compelled to either: (1) disregard historical video games as historical narratives, highlighting the fictional elements within it; or (2) claim for accuracy as a requirement to consider video games as historical narratives.

I partially perceive the discussions around historical accuracy as an obstacle for understanding the relationship between historical video games and historiography, because these discussions reduce the historiographical debate to a mere conflict between reality and fiction. However, what I noticed from the design workshops, is that these debates can also be used to reflect on the role of fiction within the construction of historical narratives. In historical video games, the presence of fictional elements seems to be more noticeable and widely accepted, and thus it can be discussed openly, allowing to consider how it is used when crafting history, and how it also echoes with public history and the general conceptualisation of this field.

4.3.b Authorship and Intentionality

Although not as vastly discussed as historical accuracy, the topic of authorship and intentionality in historical narratives also appeared during the design workshops. This topic emerged through the debates but was also developed by some participants during the video game design activity, as I show in the next chapter (see 5.3.c). During the

debates, there were discussions that showed participants' awareness of the authorship behind historical narratives in historical video games and the intentional use of certain aspects of video games to convey an interpretation of the past.

Authorship indirectly came up by discussing about existing historical video games, pointing at the limitations they offered in terms of playable characters. Talking about the video game *Battlefield 1* (EA DICE, 2016), PF3 commented that "back in the day, you only played on the winners' side". This kicked off the debate around "history portrayed from a certain perspective", with PD3 then talking about how some games deal with fiction: "how many games let you play as a German in WWII? Because it will be great to end up dying in the game". They talked about how games tend to portray the victorious side of the war, with PA3 arguing that playing as the defeated may not be gratifying and might bother players.

Up to six participants reflected on how developers' cultural perspective is embedded in their historical video games. These debates about the perspectives of the authors entail at least two notions about history. First, they remark the ontological difference between past and history, acknowledging that history is written, created, or constructed. Second, they denote the subjectivity and intentionality behind the act of constructing history, thus questioning the idea of history as objective. This is a noticeable contrast with the above discussions about accuracy. It should be noted that participants did not openly talk about historians or historians' role in composing a historical narrative, besides a couple of sporadic mentions to historians working as consultants for historical video games. But regardless, it is relevant to see how, through the discussion and analysis of historical video games, participants were able to bring up the idea of historical perspectives and indirectly acknowledge historical narratives' authorship.

As an interesting solution for dealing with the limitations of historical perspectives, participant PB1 proposed the idea of historical video game developers acknowledging their own biases and position. During the debate, PB1 suggested "a degree of self-awareness" that will acknowledge the problems with the game's perspective instead of ignoring them. Participant PC1, however, was reluctant to this idea: "it is one thing being self-aware, but it is kind of, like, laziness (...) it is like 'oh it is great that you have acknowledge this, but then you just decided to keep it that way?'". Regardless of its utility, this debate about biases exemplifies the historiographical debate around the

recognition of subjectivity in the creation of a historical narrative, acknowledging authorship and the problematics that come with it.

Besides this, during the text commentary activity (see appendix 10.2.f), participants showed concern for the intentionality behind the texts. For example, analysing the text from the video game *Valkyria Chronicles* (Sega, 2014), participant PA3 was concerned about the positive comments about “Europa”, a fictional confederation of states that resembles the European Union. Without realising that this was a fictional story, PA3 claimed that there was a bias in the text portraying western Europe as a democratic place and ignoring colonisation. Similarly, with a text from the video game *Valiant Hearts* (Ubisoft Montpellier, 2014), participant PF3 commented on the pursuit of an emotional response. He stated that the mention in the text about the people involved in the war, and particularly elderly and children, is aiming for “exaggeration”. Afterwards she explained to the other participants that: “Some bits were exaggerated from whoever created it” (...) “We think there is information for an emotional response”.

Both assertions within the text commentary activity show participants’ awareness of subjectivity and intentionality behind them. However, I have noticed that these traits are not something that participants associated to history. On the contrary, they argued that these discourses and narrative traits make them doubt the historicity and veracity of the texts. These participants did not associate intentionality, subjectivity, or literary techniques such as exaggeration, to historical texts or historians. By trying to define the veracity of the text, they identified aspects that do not fit with a conceptualisation of history as objective and truthful.

Once more, this raises some questions about how participants’ perception of historical narratives within historical video games could have more to do with the medium of video games than with their conceptualisation of history. Participants’ recognition of historical narratives from different perspectives, as well as their epistemological awareness regarding history, shows that their understanding of history goes beyond a reconstructionist paradigm. Because of this, as with the discussions around historical accuracy, I contend that participants’ attitudes in these discussions have more to do with the inclusion of historical or history-like texts in historical video games than with their historiographical beliefs.

Associating intentionality only to the video game side of historical video games could be another obstacle for discussing historiography, as the debate is once again reduced to a conflict between reality and fiction. But such tension also encourages acknowledgement of authorship in the crafting of these narratives and the intentionality behind them. By re-introducing the figure of historians and redirecting the focus towards historiography, such problematisations of intentionality can be used to reflect further on the epistemological implications of these historical narratives.

4.4 Concerns and Expectations

Finally, I took reference of participants' thoughts, concerns, and expectations about historical video games. Through their discussions, participants shared the limitations and possibilities that they perceived about the medium. From these, I identified three main topics of concern: (1) Oversimplified historical content; (2) Limited contexts and perspectives; and (3) Limited forms of interaction. On the one hand, the criticism towards these topics highlights the issues that participants have encountered while playing historical video games. On the other hand, this also hints at participants' expectations and points at traits that they find interesting and appealing. Once more, I perceived a tension between history and the medium in their discussions, that came in the form of criticism about how the medium struggles to convey historical narratives that they felt appropriate or desired, and in the form of alternatives to how history can be better merged in the video game format.

4.4.a Oversimplified Historical Content

Participants saw the oversimplification of historical representations as a main concern, especially when considering video games' immersion and storytelling capabilities that they saw with the potential to provide richer historical narratives.

One of the activities that prompted more discussions about historical content was the text commentary (detailed in 3.4.a and appendix 10.2.f). The groups of participants were given selected texts from historical themed video games, with a series of questions to incentivise their discussions about it. Most of the criticism highlighted the simplicity of these texts. For example, participant PA3, pointed at specific parts of their texts to highlight that the historical process mentioned was more complex than what the text said. Similarly,

participant PA2 pointed at simplifications in her text: “(...) that their religion is ‘relatively simple’, that is massively simplified if anything! Because, to what we know about it...”

Participant PA3 also hinted at the idea that the purpose of these texts may not be to introduce players to a certain topic, but to reference things that the player is already familiar with. PF3 also pointed at the presence of multiple subjects within the texts: “You are going from the war to women vote”, suggesting that the inclusion of several topics and the need to reduce the length of the text could be behind these simplifications.

Participants also recognised the use of specific historical concepts. PB3 commented that having “historical words like empire, conscription, democratic, it is switching over some ideas to people to think about, but I do not know if it is totally correct”. For PA3, these first order concepts are set to make sense in the text and recall a historical setting. The use of these terms appeared problematic to some participants. PB3 argued that players might require some historical knowledge to comprehend the concepts and stated that some teenagers playing these games may not understand the text. PF3 also added another argument against the use of this vocabulary, stating that their function is to mislead into thinking about the text being “more authentic”. This argument points towards a correlation between language, specifically the terminology related to academic history, and the use of history as a theme in video games.

Expanding on the idea of players being unable to understand the text, PD3 also commented on “teenagers” not knowing about what is missing in the text or linking ideas from the game to “real history”. This idea of players being unaware of the difference between fiction and reality was also highlighted by PF3, who also mentioned an example from YouTube of people playing *Assassin's Creed* (Ubisoft Montreal, 2007): “they just assume it is all accurate”. While only a few, these comments on players’ lack of awareness or lack of historical knowledge, illustrated the conception that participants had about the general public of these games, their concerns with the type of information that is presented in video games, and how it can be taken for granted. These concerns seemed to be more noticeable when they looked at content presented in textual format.

The position of the textual information was also criticised. Specifically, PG3 talked about the facts that are shown during loading screens: “how many people really read those? I think it gives you a broad outline but does not gives you specific details”. Even when the

text contains historical and story related information, participant PH3 showed reluctance to engage with it: “they embed the historical context and actual historical accuracy, and I always skip through because I either cannot be bothered to read it or I want to carry on killing things (...) it is kind of cheeky sometimes”. These comments of historical texts were reaffirmed when participants got to play historical video games during the design workshop. For example, PD3 asked if people actually read the story as they go through the game, and PB3 answered that he didn’t think so, stating later that his focus on the text was minimal. In all these cases, participants’ attention seemed to be more focused on the input and the actions that they can perform within the game than on the textual information that they are presented with, regardless of how it is being presented.

Participants also criticised how overarching narratives in historical video games tend to be shallow and simplistic. PI3 talked about moral dilemmas presented in games and how he thinks they do not get deep enough. In this sense, they recognised how historical information is shared through the general narrative of the video game and beyond textual devices. They particularly defended the use of cutscenes, recorded cinematics that offer players condensed information about the story, as another resource to guide the players and introduce historical information. PA3 commented that many video games have cutscenes where players have no input because they have to say something important that sets the story or presents a historical fact. PH3 mentioned that cutscenes give historical information and set a historical background. More importantly, PD3 argued that, in order to impose a historical outcome, some games present bits of the story in cutscenes. Cutscenes are seen as able to bring fixed information that the player has no control over, thus being able to convey an immutable framing narrative that is more akin to the traditional format of history textbooks.

In general, participants referred to historical content in historical video games as a major concern, pointing at its oversimplification and questioning its value and purpose. They considered possible explanations for this simplification, but without condoning it. Furthermore, they denounced the problematics that it could generate when considering how players may not have enough previous knowledge to criticise the information given. Finally, and as I also addressed before (see 4.2), participants recognised a potential for embedding historical content in a meaningful way beyond textual devices, by addressing the immersive and storytelling capabilities of the medium.

4.4.b Limited Historical Perspectives

Another aspect that participants criticised was the limitation of historical and cultural contexts, characters, and perspectives in existing historical video games.

Regarding historical contexts, some participants argued that video games offer a great diversity of contexts to explore. Four different participants praised the diversity of historical contexts that some video game series offer, like *Assassin's Creed* (Ubisoft Montreal, 2007) or *Total War* (The Creative Assembly, 2000). For example, PA2 mentioned: “And then, I guess *Assassin's Creed*, you play on a lot of different settings, and that one has great historical content (...)”. On the other hand, participants PC3 and PD3 pointed at the repetition of motifs and contexts in historical video games. More specifically, they talked about imperialism and the 19th century as cliché settings. PG3 also mentioned the presence of Nazis as antagonists in many historical video games, hinting at the frequency of characters from certain historical contexts. From participants' discussions, it seems that there was a common agreement in that, while historical video games offer a diverse set of historical contexts to explore, there are also predominant ones that are more frequented within different genres. In this regard, Participant PB1 also considered that including more contexts could make for more interesting games:

PB1: More diversity in time and place will be interesting. *Call of Duty* is very American centred, it will be nice to have that sort of game but on a different context and with a different narrative... or a colonialist setting... presenting those struggles will create more interesting games.

Some participants argued that video games did not offer a diverse landscape when it comes to characters, environments, or stories. Criticism focused on gender and culture. PB3 said that they felt there is a lack of diversity, usually finding “white men as the main character”. Participants PA1 and PH3 also showed concern for the lack of female characters, while participants PB3 and PD3 referred to the lack of people of colour. PD3 brought the *Fallout* (Interplay Entertainment, 1997) series in this discussion, arguing that the cast of characters was diverse, but asking “how many black people you see in the game? (...) how many Asian people you see? Probably more later on, but why not at the beginning?”, and denouncing that “the majority of games have a male white character in that early stage”. Similarly, PI3 shared that “You never play Shaka, or the redcoats”, pointing at a lack of characters and stories in video games. PC1 also stated that, while in video games “it is quite easy to forget about people of colour's perspectives”, in historical

video games, this could be a great approach to learn new things: “you could potentially end up learning about these cultures”. Participants PA3, PB1, and PC1 tied the prevalence of white-male protagonists to marketing and consumption. Participants PA2 and PB1 also stressed a needed limitation regarding diversity, arguing that it is somewhat tied to the historical period and aimed to accurately represent people of that context. Finally, PC3 also commented on players’ interpretation of diversity in historical video games, talking about how *Battlefield 1* (EA DICE, 2016) introduced black German soldiers and people reacted to that “saying ‘is that accurate?’ (...) I think that was interesting”.

On the other end of the spectrum, some participants defended the presence of diversity in video games. For instance, PA2 stated: “I do not think diversity is really recognised in most of the games (...) you can play a lot of different characters in some and customise your characters”. This idea was also shared by five other participants who declared that the video game industry is more inclusive and innovative than other popular culture media. PA3 commented that diversity in video games is slowly improving, and PA1 also praised how fictional games like *Skryim* (Bethesda Game Studios, 2011) treat the topic of racism using fictional ethnic groups, and how that allows players to see other perspectives.

Despite this clash of positions, all participants agreed on criticising a diversity that entails stereotypical representations. PD3 mentioned *Tomb Raider* (Core Design, 1996) and the character of Lara Croft as being problematic, stereotypical, and not helpful with diversity: “it is like a *Barbie*”. PA1 talked about how enemies tend to be portrayed as a “middle eastern angry person”. PC1 argued that some video games “implemented diversity in this really fucked up way” with tokenism and an essentialist way of viewing race, culture, and gender. Going beyond inclusion, stereotypes were defined by PA1 as creating “one-directional” characters. PB1 said that they make “boring characters” and that he was not “worried about stereotypes offending people”, but more concerned on stereotypes being just a waste of time for players: “interesting games do not make stereotypical characters”.

Finally, participants noted and criticised the predominance of a western perspective in historical video games. For example, participants PC1 and PA1 talked about how this might limit the contexts explored and the characters shown. PG3 stated that “in terms of culture, they are mostly set from a western point of view”. PC3 also talked about the cultural perspective behind historical games: “in *Total War* games there is a medieval

one, a Napoleon one... they have got a lot of games, but they are all Eurocentric. Apart from ‘*Shogun (Total War)*’ obviously, which is Japanese ...”. This comment led to further discussions between several participants about how video games made in other contexts outside of the western sphere, like Asia, can also be ethnocentric and lack diversity in their own way.

Overall, participants’ discussions about diversity showed major points of criticism regarding the limitation of historical perspectives in historical video games. While there was no clear agreement in all aspects, participants’ concern over stereotypes and ethnocentrism raises as clear issues to tackle. Participants recognised that the historical narratives found in historical video games suffer directly from the limitations and absences regarding represented contexts, characters, and perspectives. Furthermore, the limitations entailed by the ethnocentric perspective also allow to reconsider participants’ claims about the lack of diverse contexts and characters in terms of designers’ perspectives and contexts of production and consumption. Noticeably, participants mainly related these issues to the industry of video games, specifically the marketing, the consumption and the production of video games.

Finally, participants argued that they wanted to see more diversity in historical video games, and that there is a commercial and educational benefit of doing so. In this sense, participants hinted at fiction in video games as useful for dealing with complex topics; at video games’ spatial representation as useful for exploring other contexts; and at character-embodiment as a tool for embracing other perspectives.

4.4.c Limited Forms of Interaction

During the design workshops participants stated that their attention when playing video games was more focused towards the input and actions that they could perform than towards textual information displayed. I was able to corroborate this during the play activity of the workshop (see appendix 10.2.h) when participants played *Painters Guild* (Molina, 2015), a game about managing a painters’ guild in the renaissance. Participant PI3 argued that the main thing they learned about the historical context portrayed in the game was “that mixing paint is important”. I reflect that this focus on the mechanics of the game, rather than the historical facts displayed, is an indicator of the complexity of video games as a medium. Participants judged knowledge beyond the textual devices and

with a focus on the players' actions within the game. This shows that video games need to be approached broadly without excluding any aspects, and it also highlights the relevance that intended actions have on players' reception of a video game.

In this sense, participants were particularly critical when discussing the possible actions and inputs offered in historical video games, and referred to forms of violence as the most common types of interactions in such games:

PA3: Immediately when I think, 'How do you interact with the historical context', it usually involves mowing down a lot of people.

PB3: Usually involves a lot of death and blood.

Moreover, war, warfare, and weapons were mentioned by PG3 as the usual focus of historical video games, and as an instrument for setting a historical theme. Such correlation between video games and military history limits the possible interactions that historical video games can offer.

Regarding non-violent types of interactions, PA3 talked about a mechanic from *Assassin's Creed* (Ubisoft Montreal, 2007) that he felt was boring but "historically accurate":

PA3: (...) Too many missions where you have to walk around with a box and give it to a person (...) And I know that was probably the most historically accurate part of the game, because I know that in the medieval (period) people did very little with their lives and probably spend lot of time walking around giving boxes to people, and probably not a lot of time with cool assassins altering the course of history.

While participants recognised violence as a main type of interaction offered in historical video games, they only referred to physical and simple actions such as hitting and shooting. They did not refer directly to other forms of violence, more abstract or complex, that are present in historical video games, such as occupying territories, stealing resources, or manipulating information. They did recognise a correlation between violence and certain historical narratives with a focus on armed conflicts. In this sense, their criticism went toward the prevalence of violent types of interactions, and they stated the need for other type of mechanics that manage to be meaningful, and enjoyable. Similarly, as I also argued earlier in this chapter (see 4.3.b), participants were keen to identify that the rules and mechanics in video games are part of the construction of a

historical narrative. This acknowledgement shows a recognition of video games' complexity and implies the need for exploring the use of affordances for conveying history.

4.5 Chapter Summary

In this chapter, I have analysed the discussions and debates held by the participants of the design workshops arranged for this project, aiming to understand how people engage with the historical narratives and the historiographical approaches featured in historical video games.

First (4.2), I showed how participants referred to historical video games as a distinctive form of historical narrative characterised by its multimodality; formal characteristics such as immersion, characterisation, and mechanics; its context of production and consumption; and its main focus as a form of entertainment. In this sense, historical video games require a unique approach that needs to take into consideration all of these aspects in order to analyse the historical narratives that they can create, and to consider the possibilities that they may offer.

Next (4.3), I demonstrated how participants identified historiographical ideas embedded in historical video games, and how they prioritised concepts like historical accuracy and objectivity in their analysis of historical narratives within this medium. I argued that it will be important to recognise this disjointed collection of historiographical discourses and axioms that comprise a public conceptualisation of history when studying the relation between historical video games and historiography. I also argued the relevance of acknowledging the ludic frame within people's perception of historical video games, stating that it fosters a differentiation between fiction and history that can, either constrain historiographical debates, or be explored to promote them.

Finally, in the last section (4.4), I shared some of the participants' concerns towards historical video games, namely the oversimplification of historical content, the limitation of historical perspectives, and the limitation of affordances. I argued these concerns are mostly associated with the video game format and the video game industry, and not with academia or public history. This also highlights the tension within historical video games between what is seen as historical and what is seen as ludic or fictional. Participants also acknowledged that the medium offers possibilities to subvert these concerns, by

integrating more narrative devices, embracing other perspectives, and exploring new affordances, respectively.

After analysing participants' discussions and debates about historical video games, in the next chapter I have analysed their engagement with historical video game design.

Chapter 5. Engaging with Historical Video Game Design

5.1 Chapter Overview

In the previous chapter, I began to analyse the data from the design workshops, focusing on the discussions emerging from the debate activities. In this chapter, I continue with the analysis of the design workshops, but looking specifically at the design activities, where participants engaged with the conceptual design of a historical video game (see appendix 10.2.g). Doing so, I aim to further understand people's perception of historical video games and to identify characteristics of the medium that could be used for further explorations of these historical narratives.

In the following pages I focus on: analysing participants' engagement with the design activity, their attitude, and their concerns towards design (5.2); describing participants' designs and how they discussed historical video games, historiography, and formal aspects to create their designs (5.3); and finally, listing and analysing aspects of the medium that participants used to create their historical video games (5.4).

5.2 Approaching Design

I begin this chapter by looking at participants' engagement with video game design. As explained in the methodology chapter (see 3.4.a), the design workshops included a design activity in which participants had to conceive ideas for a historical video game. Further description and reasoning of this activity can be found in the appendix (10.2.g). With this activity I was able to observe how participants confronted design, how they felt throughout the experience, and what kind of broad issues they encountered.

Overall, the experience was positive and productive. Participants actively engaged with the design activity by proposing and discussing multiple ideas and approaches. I gave participants suggestions on how to proceed through the design activity, proposing methods like brainstorming with sticky notes, outlines, and concept art. However, participants did not require much guidance throughout the activity. They showed a proactive attitude prone to discussing with their peers and generating ideas at their own

pace. All the groups followed a similar pattern. They started with enthusiastic and disorganised conversations and jokes where they randomly proposed ideas and mentioned different genres and video games that could work as references. And after that, they focused on shaping their designs, clarifying the narrative and interactions available in their game.

Analysing this engagement, I have noticed that this use of genres and other games as references was a vital aspect. It served as a starting point to discuss about design, but it also allowed them to establish a common language among the group's participants and to centre their discussions around specific aspects of the design. Also, as an approach to game design that does not involve programming nor participants with a technical background, using an existing video game as example helped them visualise format-related aspects and share their thoughts about them with the others. Furthermore, the use of references also helped participants to narrow down certain aspects of their video games, like characters, narrative structures, and mechanics.

During the activity, participants mainly aimed towards two objectives: composing an enjoyable video game experience and creating a compelling historical narrative. On the one hand, participants discussed several formal aspects that composed the video game experience. They used specific vocabulary and tended to pay attention to concrete details, like the scoring system or the input. Most of this was centred on the definition of the game objectives and mechanics aiming to find an approach that felt enjoyable for them. On the other hand, participants discussed the historical contexts to cover in their designs, using this as a general departure point for tackling the historical side of the design. Other aspects such as characterisations and concrete geographical spaces followed up. The bulk of their debate around historical narratives was set on presenting an interesting and accessible setting while ensuring historical accuracy.

The differences between these two objectives are noticeable in their engagement. As shown before (see 4.2), participants considered enjoyment as an integral aspect of video games, and hence, aimed to ensure its presence in their designs. Participants made constant references over what they considered as “fun” and “enjoyable”, and their discussions focused on how to integrate this into the design. As participant PF3 stated: “also, it is a game, (it) should be entertaining”. But this pursuit emphasised a tension between their foci on history and entertainment. As participant PG3 later reflected on the

activity: “it is tough, but it is interesting, because we were like: Oh! we want to do all this history, but that is not fun!”. As a result, their approach to both objectives, making it enjoyable and making it historical, was noticeably different.

Looking at the overall experience, participants showed an initial focus on objectives and mechanics that diverged when they started thinking further about introducing a historical narrative. Discussions about the historical context and theming of their video games ended up being more prominent than those about rules, goals, or genres. In this regard, while references were useful for participants’ engagement with the activity, they also led towards the use of preconceived models for their designs. For example, the groups of participants that discussed video games like *Skryim* (Bethesda Game Studios, 2011) or *Fable* (Big Blue Box Studios, 2004), ended up designing RPG video games, and likewise the group that focused on the video game series *Professor Layton* (Level-5, 2007) proposed a puzzle video game. In both cases, participants’ designs included certain elements and affordances that were not throughout discussed or debated but were seen as inherent to the genres and required for their video games. For example, elements such as open worlds, dialogue systems, quests, currency, points, or skills; and affordances such as exploring, conversing, fighting, collecting, and matching.

I associate this reliance on existing games with participants’ lack of design experience. But it also hints at the standardisation or normalisation of historical video games. I reflect that the references they used for their designs might have ended up distracting them from specifying or exploring other approaches. It is possible that participants assumed that the objectives of their games were implicit in their selection of a genre, without questioning further possible interactions than those already involved in the video games they knew. Furthermore, these references and genres might not only introduce certain affordances, but also prompt historiographical ideas, as it has been discussed in the existing literature (Uricchio, 2005; Kee, 2011; Chapman, 2016a). Thus, I argue that the standardisation of historical video games towards certain genres and formulas is also a signal of a normalisation of certain historiographical approaches. With participants’ reliance on these video games also comes a reproduction of certain historiographical concepts embedded in affordances, camera perspectives, interface conventions, etc.

On the same note, concerns towards the type of hardware and the physical format of their video game designs were anecdotal. Considerations around other aspects, like music,

interfaces, or camera perspectives, were almost absent as well. Likewise, participants did not touch upon these technical aspects during the debate activities (see 4.2). This focus towards software can be expected, as the design activity did not require further knowledge on video game development, nor included participants with backgrounds outside humanities. Probably, with designers joining the activity, or with the inclusion of other type of design activities, there would have been more concerns towards some of these practical and material elements. However, I think this can also be tied to the standardisation of the historical video game format, that is prone to certain hardware specification. Likely, as participants' engagement with design was heavily influenced by their previous experience as players, their concerns revolved around those already crafted experiences, omitting questions and aspects that they might unintentionally consider as granted.

Finally, concerns for the economic profitability and the target consumers of their video games were also sporadically present. Particularly, one of the groups discussed about the challenges designing a video game noting that they would need considerable funding and research for their design, and because of that, they claimed that their design was not plausible nor profitable. Although sporadic, comments like this reaffirm participants' awareness of the video game industry (see 4.2), and hint at the limitations imposed by budgets and marketing.

Overall, participants' focus and concerns during the design activity align with those seen in the previous chapter (see 4.4). Tensions between what is seen as historical and as ludic prevailed through this activity, with the reliance on existing video games becoming both, a useful tool for designing without technical expertise, and a burden for exploring unique ideas and consider further design aspects. Furthermore, participants brought their initial concerns from the debate activities to the design process, attempting to address them in their own historical video game designs.

5.3 Designs and Discussions

In this section, I describe and analyse participants designs and their design process, outlining the most relevant aspects that they discussed and identifying characteristics of historical video games that they used when crafting their historical narratives.

As explained in the methodology chapter (see 3.4.a), participants in the first and the third iteration of the design workshop engaged with design activities where they had to propose an idea for a historical video game. The number of participants differed for each iteration, with three participants in the first instance and nine in the third one. Due to their numbers, during the third workshop participants were divided into two smaller groups to better engage with the activities. In total, there are three historical video game ideas that were designed by three different groups. I refer to them in this chapter as group 1, 2, and 3 respectively. Their experience and engagement with design differed slightly, mainly regarding the theme and discussions that they used as inspiration.

Group 1 had to design a video game based on the Victorian Era. I chose this theme for the first workshop aiming for a well-known and extensive historical period (see appendix 10.2.g). Participants designed an open world RPG set in colonial India, as they described it, with players embodying a customizable character that just arrived at India and having to complete quests by interacting with a diverse cast of characters. Groups 2 and 3 had to propose a design around the theme of “How history is made?”. I chose this theme for the third workshop trying to further encourage historiographical discussions. Group 2 presented a video game set in Roman Britain, where players embodied characters from different factions and had to interact with other characters and perform day-to-day chores. Meanwhile, group 3 proposed a logic-puzzle video game where players embodied historians and had to travel through time collecting data, solving historical riddles, and constructing a historical narrative.

Having described participants’ designs, I now move into analysing their common discussions throughout the design activity. I organise the analysis in three sections, focusing on: (1) how they conveyed a historical narrative; (2) how they engaged with formal aspects from video games; and (3) how they dealt with historiography and the epistemological connotations of their designs. Moreover, I link this analysis with participants’ previous discussions about historical video games (see chapter 4) to observe how their designs answer to their previous debates. I highlighted how participants engaged with these discussions through a design perspective, which characteristics of historical video games they used, and how they applied them to compose their ideal historical video game designs.

5.3.a Designing a Historical Video Game

Some of the aspects of historical video games that attracted participants the most were the use of engaging narratives, immersive settings, and characterisation (see 4.2). Participants focused on these elements when trying to design their video games, while addressing at the same time some of the issues that they discussed before, like the oversimplification of historical information, and the limitation of historical perspectives.

As mentioned before (see 5.2), all groups of participants discussed the historical setting of their video games early on in their design process. Establishing a historical context to work with was a reassuring approach that brought general agreement. It seems that, when it comes to crafting a historical narrative for their video games, the setting was one of the most important aspects, and it informed the story, the characters, and even the mechanics and game objectives. I observed that participants relied on their previous historical knowledge and on historical concepts and institutions to establish this setting. Their concerns towards a lack of diverse historical contexts (see 4.4.b) were also present when deciding the setting of their designs.

These points can be seen in all groups. For example, in group 1, while participants were already given an overall context, design started with the concept of imperialism, introduced by participant PC1 as a way to explore different locations in their video game. This participant argued that imperialism entailed that “everything is connected, and you have people traveling around”. Their following exchange showed participants’ reliance on specific historical concepts, such as imperialism, trading companies, and trading ports, that they associated with the historical context of the Victorian Era. They ended up setting their game around a single port in colonial India, as a place where people from multiple places gather.

In group 2, early ideas provoked a succession of concepts without agreement. A few minutes in, the group agreed on the idea to set a specific time period and location with a story that moved forward as the player made different choices. Participant PE3 suggested Ancient Rome as the setting, arguing that: “you have the August and Caesar, that is so critical, and there is a lot of killing people”. Participant PD3 proposed dividing their game into two halves and having two different perspectives of their Roman historical setting,

including the Roman and the Barbarian sides, and motivated by this, participant PE3 suggested adding aspects like religion and rivalry between tribes.

Group 3 was an exception, as participants invested more time to debate about their historiographical approach rather than a specific context, and they decided to use an existing video game with multiple contexts as their main reference. However, even in this group, participants PG3 and PI3 argued at one point the need to settle a specific context to work with, stating that it will make their task easier. Finally, participant PH3 suggested multiple contexts to ensure diversity. While deciding to include multiple historical contexts, they also talked about a main setting involving a history museum, with players having to travel back and forward in time to create museum installations.

I noticed that participants were also concerned with developing a framing story for their designs since early on. This process was heterogeneous, and they considered elements like the context, the mechanics, and the textual devices to mould a story. Groups 1 and 2 talked about the story right after defining their historical contexts. They tied the story with the context considering which events, tied to those periods, could serve as inspiration. Both groups also focused on how a dialogue system will allow the player to advance through their story and introduce multiple storylines. These two groups presented a story-driven video game, where a complex narrative seemed to be the most attractive aspect. However, they did not give many details about the story itself, just the overall setting and how players could unveil the story and interact with it. By contrast, group 3 did not have the same focus towards storytelling in their design, but they still ended up crafting a story to explain the setting for their video game. I noticed that participants relied on storytelling even if it had no further purpose or it was not the main feature of their design. I reflect that, as with the historical context, participants thought that it was important and relevant to include a story, even if it was just for setting the objectives of the video game. This reaffirms their understanding of historical video games as a storytelling device, in which a narrative pursuit must be present.

Participants' attempts to convey a complex narrative involved the inclusion of stories driven by dialogues and with multiple plotlines. In group 1, participant PB1 proposed to focus on a single historical context but introducing people from multiple places. They were thinking about increasing the possible interactions available, fostered by the challenge of exploring diversity in their video game. As so, PB1 defined the main

character of the story as someone adapting to a new cultural context. This core idea in their design led them to define their video game as an open world RPG, but PA1 also suggested to have several storylines. The story that they were envisioning became a core descriptive element of their video game. In group 2, participant PD3 also proposed a similar approach, very early in their discussion, about having the player interact with multiple stories. Even when other ideas came up, they went back to this one, and they highlighted it in their final design, explaining how they combined a main story with several side-stories. Overall, participants wanted to give players multiple choices to freely explore and expand their experience, and the historical narratives.

In line with their previous discussions (see 4.4.b), participants paid special attention to characterisation, and ensuring that representation was diverse and positive. Most of their debates focused on non-playable characters (NPCs), that served as a tool for developing the story of their games, shape the context, and even inspire mechanics. For instance, in group 1, PB1 urged to avoid representing groups that did not belong to the historical setting of their game, and PC1 proposed having characters from multiple backgrounds like sailors, prisoners, or slaves. Group 2 also talked about adding diversity through characters, and they proposed including north African soldiers, as well as slaves and other roles in their game. Regarding playable characters, each group took a different approach. Group 2 proposed having two different non-customizable characters that players will control at different moments, giving them the two sides of the story. Group 3 suggested customizable characters without a concrete story attached to them. And finally, group 1 proposed a mix of both ideas, with a customizable character that could trigger multiple storylines depending on its traits. In each case, participants gave to the playable character a different weight in the historical narrative, showing a range of possible approaches.

Finally, in order to convey a complex narrative, participants also resorted to specific narrative devices. Particularly, stories involving time jumps, like flashbacks, flashforwards, and time-travel, appeared at some point in all the groups. The motivation behind this could be that some of the video game references that participants used, like *Assassin's Creed* (Ubisoft Montreal, 2007) or *Professor Layton* (Level-5, 2007), also rely on similar devices to explore different timelines. However, I think these structures deserve further analysis in terms of their purpose and the historiographical ideas they can convey. On the one hand, they allow to cover multiple well-known events from different

periods, reaching a wider audience in the process. On the other hand, they allow to exemplify the passage of time, showing middle and long-term changes and engaging with ideas like causality and teleology. Participants did not address these considerations explicitly, so I can only speculate about their reasoning and motivations. Regardless, by embracing these narrative devices, I do believe that participants acknowledged the role of fiction in the creation of their historical narratives and its relevance for composing more complex and engaging historical video games. They actively engaged with exploring different ways of telling their stories as part of their creative process, recognising how it changed the meaning of their work.

5.3.b Discussions About Formal Aspects

During the debates, participants also referred to the mechanics within historical video games as another relevant aspect and showed their concern for a lack of interactions available in existing titles (see 4.4.c). Participants addressed this in their designs by trying to define interactions that felt meaningful by being connected to the historical setting and the story. Such concern was explicit in participants from groups 1 and 2, who opted for RPG designs, where players explore environments, dialogue with NPCs, and fulfil different tasks related to the historical contexts. Similarly, but with a slightly different approach, Group 3 searched for affordances that were in line with their debates about how history is made: having players solve logic puzzles, collect data, and produce a historical narrative.

Despite this aim towards meaningful interactions, and despite participants' criticism about mechanics around violence in existing historical video games, several participants from all groups suggested at different moments having some type of combat or warfare related mechanics. For example, in group 2, participant PA3 teased about having something to kill, and PB3 proposed having massive battles involved. As participants heavily criticised these types of interactions before, I contend these were just humorous commentaries. Combat was not mentioned in their final designs, except for group 1, where participants ultimately decided to make combat an optional mechanic, something that players did not have to engage with necessarily.

Instead of combat, participants in groups 1 and 2 tried to focus on other mechanics present in the RPG and action/adventure video games that they used as reference. Participant PD3

in group 2 proposed offering quests with simple tasks and daily activities related to the historical context, like delivering items or producing goods. But what both groups highlighted the most were in-game conversations and having the opportunity to talk with different characters and answer their questions with multiple choices. This was a core mechanic that needed to be meaningful, connected to the historical context, and able to generate multiple outcomes.

This idea of choices and options also brought up another discussion surrounding players' freedom of action within historical contexts. This was already noticed during the debates, where participants talked about how some games tend to force the player's actions in order to stick to a certain historical narrative, while others allow players to even explore counterfactual history (see 4.3). When participants had to decide upon this for their designs, they ended up with diverging opinions. In group 2, participant PE3 proposed limiting some of the interactions in order to ensure that the story will go in the direction they wanted. As an alternative, PC3 referred to games like *Fable* (Big Blue Box Studios, 2004) and *Fallout* (Interplay Entertainment, 1997), and suggested a system where players do not realise that they are being guided through a resolved story: "It is not predetermined, do this, do that, but It is kind of shaped". In group 1, participants sorted this debate by suggesting that the quests and objectives in their design were all based on historical data. In group 3 this was not openly debated, leaving the possibility of counterfactual explorations in their video game. They described their game as one: "where you collect and discover different ideas to fill up a picture, so you can answer a question. (...) you are solving a puzzle and constructing a narrative about an event in history".

Regardless, from the mechanics in participants' designs it is important to address how they all aimed to integrate available interactions with the historical narrative, and how they prioritised giving players multiple choices and options in this regard. I also want to address how the tension between open experiences and guided experiences was seen in relation to historical video games. Ultimately, participants' designs illustrated their conscious attempt to address the limitations in mechanics that they criticised from existing historical video games, and the relevance that affordances have as a driving force for the historical narrative itself.

5.3.c Discussions About Historiography

Participants also embraced historiographical debates regarding the historical narratives of their designs. Most of their discussions related to previously debated topics like historical accuracy and intentionality (see 4.3). However, historiography was a more common topic during the design activity, especially in groups 2 and 3 that had to design video games around the theme of “how history is made”. As I originally intended, this topic encouraged for more historiographical debates (see 3.4.a and appendix 10.2.g). It is also important to mention the background of the participants of each group, as participants in groups 2 and 3 were PGCE students, and participants in group 1 were undergraduate students. The data sample is too small to make further claims in this regard, but PGCE participants, having already achieved a BA degree, had more knowledge about historiography and first order concepts, and this is observable in their insightful debates and designs.

In group 2, participant PC3 suggested at the beginning making a game featuring historians, and PD3 added the use time-travel to explore “how history is made”. Following this, PA3 proposed that history “could be taken from teachers’ interpretations, like history is a construction, and the game kind of deconstructs somehow through time travel, like a puzzle game”. This idea was not well received by the group, as they ultimately decided to focus on an RPG style video game with multiple stories and choices. PB3 suggested that if “how history is made means how things are shaped” then they should focus on facts and settled outcomes rather than multiple choices. After this, they decided to define a historical context, and PE3 proposed Ancient Rome, identifying relevant historical characters and associating the period with violence. PC3 then suggested: “You do not have to be August and Caesar; you can be like just a Roman. So, like history is made from that as well. (...) we are saying well history is made by ordinary people”. The group then discussed about having two different perspectives to show both sides of a conflict and having simple errands and tasks as player’s basic objectives. They also decided to be more flexible regarding historical accuracy, with one overarching story that was more accurate, and side stories that did not have major repercussions on the historical outcome and could be fictional.

From this summary, it can be observed that the design activity managed to prompt epistemological discussions. Participants brought many elements early on, like historians’

role, interpretations, and deconstruction, but it was difficult to find a consensus among them. Instead, they decided to set their game in the past and to look at how past events unfolded. Initially, I interpreted their proposal as inspired by a reconstructionist historiographical approach; however, they introduced a major focus towards social history afterwards. Social history was brought up initially by the same group during the debate activities (see 4.3) and they tried to apply these previously discussed ideas to their design. For example, they discarded focusing on elites and proposed a historical narrative from the bottom up, looking at how people lived during that period. They did this, not only through the stories and context, but also through suggesting mechanics and objectives around people's daily routines. Thus, while they ultimately asserted the idea of objectivity and a factual reconstruction of the events, they were also able to express their own interpretations, introducing social history and proposing ways to adapt this historiographical approach to the medium. Furthermore, while participants might not have referred to historical video games as historical narratives during the debates, they did acknowledge that, when designing a historical video game, they were telling players something about how they conceptualise history. Overall, this debate showed a diverse range of ideas among participants and how they struggled to get these different interpretations into a historical video game.

I found these same struggles in group 3. Participants initially proposed to have players embodying a historian, which led to further epistemological considerations.

PG3: How about rather than how humans make history, how about how historians make history?

PH3: Yeah, that is what I was thinking, but how is history made?

PG3: But how historians make history?

PI3: It is evidence based, right?

(...)

PG3: Historians come up with a hypothesis and then start looking for evidence.

PI3: So, historians construct the past, I think.

PF3: Yeah.

PI3: But it is still... say, it is evidence based, so also historians construct it... so, there is no truth.

PF3: It can (be).

PG3: Well, people do things, so we make history (by) doing things. That is one that... you can say that is making history. How and why the people do things. Why they made the decisions they made.

PI3: So, history discovers how and why people do things?

PH3: You could also address there that, like, they were saying how history is made from the victors' perspective, so history is made by the winners.

PI3: That is interesting thought, because I do not think video game developers think much about it.

Other approaches were also proposed.

PG3: Rather than a confusing game about writing a history book, which I am struggling a bit seeing as a computer game, maybe let us think more about how humans make history happen.

However, they ultimately decided to stick with the historian's perspective. In order to move forward, participants agreed upon looking for an existing video game, *Professor Layton* (Level-5, 2007), that could work as reference, aiming for a game that involved solving logic puzzles to "complete a broken story". Based on this, PF3 proposed having different historical periods to explore, and PG3 stated that exploration could serve to discover the past and how things happened. After this, they tried to further connect their ideas about history with this type of video game.

PI3: It is evidence based, and it is also constructed, so, your character is finding evidence to construct a story, somehow? Piece together a mystery, so... I do not know what the end-product is. (...) you have to go around and investigate these events and build a narrative.

Finally, they also discussed players' objectives and motivation that will fit with the style of the game and the idea of exploring different contexts. PH3 proposed setting the video game in a museum, with players having to travel back in time in order to make a museum installation. Afterwards, they continued discussing their design along these lines.

As seen with this summary, participants in group 3 also showed a greater engagement with historiography during the design activity. They brought interesting concepts to their discussions, like interpretations, causality, authorship, and discovery, while trying to decide how history is made. They relied on an existing video game to identify affordances that could comprise these different concepts, and they tied a story to it. Finally, they also

highlighted the position of historians and the roles of subjectivity and interpretation in the making of history.

Historical accuracy was one of the overlapping discussions among all groups. Participants moved between assuring that the game portrayed accurate information and admitting that some aspects could engage more freely with fiction. Participants in groups 1 and 2 suggested grounding their stories and affordance to real historical events, but they also decided to be flexible with their historical narrative overall. They talked about the need for historical research to assure quality in this regard. The idea of counter-factual history can also be linked to this debate. During the design activity, comments about counter-factual approaches were sparse and ambiguous. Participant PD3 proposed the idea of changing historical events in their video game, but PA3 dismissed it arguing that such approach sounded “educational”. Group 3 suggested a game about “constructing a narrative about an event in history”, but they never addressed openly if counterfactual history was possible or not. Overall, even when they toyed with fictional elements and counterfactual approaches, I think participants were more worried about creating a historical narrative that accurately represented the past. This corresponds with their previous debates, where historical accuracy appeared as one of their main concerns (see 4.3.a), and also brings back the tensions between what is seen as historical or as ludic.

The other overlapping discussion was regarding historians, subjectivity, and intentionality. Debates about introducing historians were seen in groups 2 and 3. I analyse these discussions because there is a relevant ontological gap between defining history as something made in the past by people from a certain period and defining history as something made by historians in the present. However, what participants understood as the role of historians also varies, from exploring and discovering the past, to constructing narratives. In group 3, this idea fostered participants to define their video game objectives. For example, participant PG3 proposed: “you are a historian and you have to write a text selling people popular history book”. But recognising historians’ roles also implies addressing the subjectivity and intentionality behind historical narratives. Participants in groups 2 and 3 recalled in this sense the idea of “winners” writing up history. In group 1, participants were concerned with designing a video game that showed multiple perspectives or interpretations of the past, and they talked about using multiple sources when doing research for their video game. Moreover, group 1 also brought the idea of

developers acknowledging their own subjectivity as a strategy to ensure that other contexts and perspectives were at least addressed.

In general, during the design activity participants actively engaged with historiographical debates, further expanding on previously discussed issues and also introducing new perspectives that only appeared with the challenge of designing their own historical narratives. They discussed their different approaches to history and found agreement to push forward their designs. Overall, they were able to embed their video games with their historiographical approaches, even using them to inform decisions over affordances, story, characterisation, and other elements. And what is more important, in doing so, they addressed historical video games as historical narratives able to comprise historiographical ideas.

5.4 Design Workshop Outcomes

5.4.a Relevant Design Aspects

After analysing participants' engagement with design, I drew the following conclusions, that worked as the outcome of the design workshop and informed the next phase of this research. I decided to focus on broad aspects of historical video games that were highlighted or used by participants in their designs, and that could be considered suitable for exploring a deconstructionist historiographical approach. These are the most relevant aspects that participants relied on when designing their historical video games:

- **Creating a historical narrative through affordances:** Affordances are the possible interactions found in a video game that emerge simultaneously from what the player can do and what the environment allows them to do (Linderoth, 2013, pp. 3–4). This concept was not used by the participants, but they did talk about mechanics, actions, and objectives in relation to virtual environments. When designing their video games, participants were aiming towards mechanics that allowed engagement with history in meaningful ways, and they made this possible by connecting complex stories with meaningful interactions and creating a formal mesh of affordances oriented towards the same goal. Whether it implied talking with characters, performing mundane works, or solving logic puzzles, participants tied these interactions to the historical context and the core narrative of their

designs, in a way that the affordances they proposed emerged from, supported, and addressed their historical narratives.

- **Historical settings conveyed through storytelling:** Contextualisation and storytelling were common aspects in participants' discussions. These aspects were essential in the creation of their historical narratives. Such approach implied deciding on a time period and a geographical context, for example colonial India, but also embracing overarching stories like the conquest of Britain. From there, they were able to work around the rest of their historical narratives.
- **Characterisation as cornerstone for the narrative:** The question of 'Who are you playing as?', while almost tacit during the activities, was crucial for participant's design process. Defining the players' role was frequently the next task after establishing a setting, and it helped for crafting the story and establishing the perspective of the game. Regarding NPCs, participants mainly tried to populate their designs with characters that were fitting for the period or that fulfilled the players' expectations. Sometimes, they relied on well-known historical figures and groups, like Caesar or the Normans. Overall, they focused on giving those characters a role in guiding and motivating the player.
- **Emphasis on objectives and goal-oriented narratives:** Defining clear objectives was also a concern for participants. The emphasis was set on how such game objectives tied with the story and composed a cohesive mesh where player's aims are in correlation with the overarching narrative. In some instances, this also led to a pragmatic approach towards history, by orientating their designs towards 'writing history' or 'curating a museum exhibition'.
- **Assuring multiple choices and options:** All groups relied on complex storylines and dialogue systems, with multiple choices, outcomes and actions, customisation, and context variety. This shows a concern towards offering players a diverse poll of experiences that they could embrace. Discussing the application of this aspect also entailed considerations about historical accuracy and counterfactual history, and the tension between guided experiences and free exploration.
- **Relying on historical references and historical accuracy:** Participants relied on their previous knowledge and on specific historical references to craft their historical narratives, paying attention to how it remained within their criteria of

historical accuracy. Sometimes this implied adding historical references to create a recognisable virtual environment.

- **Fiction as a useful tool:** While participants were concerned with historical accuracy, they also questioned it in different instances. They were open to accept fictional elements and to experiment with non-historical additions when crafting their historical narratives. This implied seeking a balance between a historical setting that was accurate, and fictional stories that could be inspired by the settings. Likely, this is due to their recognition of historical video games as a form of entertainment, and the implicit need to make their designs enjoyable.

As I described in this chapter, participants considered and applied each of these aspects during the design activity. By themselves, these aspects can give a picture of what is relevant for the design of a historical video game, what should be accounted for, and how history can be conveyed within the medium. Finally, these aspects also resonate with participants' previous discussions about historical video games, especially with their concerns and considerations about the medium (see 4.4).

5.4.b Diegetic Framework

From the analysis, I have noticed that participants' design discussions tended towards dealing with three specific questions: (1) What is the player allowed to do? (2) How do players' actions relate to the historical narrative of the video game? and (3) How do we appropriately convey a historical narrative? I suggest these questions reveal a tacit diegetic structure embedded in historical video games' historical narratives.

The concept of diegetic levels comes from literature studies (Genette, 1983). The diegesis can be referred to as a fictional world, a level in discourse, created by narration (Klevjer, 2002, p. 198). The diegetic levels refer to the multiple perspectives that are encompassed within one another in such narrative world. Gérard Genette (1983, pp. 228–229) distinguished between: an 'intradiegetic' level that corresponds with the main narrative; a 'metadiegetic' level that corresponds with narratives within the main narrative (stories within stories, characters re-telling events, etc); and an 'extradiegetic' level that corresponds with narratives outside the main narrative (author's or reader's context). These levels can be transposed to historical video games, matching with participants' main questions:

The narrative created by players while playing (also referred to as ludonarrative) corresponds to a metadiegetic level, a story within a story. Design questions about affordances relate to this level.

The narrative created by the developers when designing corresponds to an intradiegetic level. It comprises the stories they write and include in the video game (also referred to as framing narrative). Participants addressed this when introducing a setting and a story to their video games.

And finally, the narratives surrounding the contexts of production or consumption corresponds to an extradiegetic level. For example, participants' discussions about history and video games. These were external to the story and not explicitly included, but they still played a role in participants' designs.

I argue that, when participants crafted their historical narratives, they engaged with each of these different narrative levels. They had to think about how their historical narratives will comprise and address each different level: how they will address players' interpretations and engagement, how they will comprise a consistent narrative by its own, and how they will comply to current paradigms regarding video games and history.

Furthermore, I think that the aspects that participants decided to use in their designs emerged as an answer to the tensions found between diegetic levels:

- On the one hand, participants focused on mechanics, objectives, choices, and characterisation to address the tensions between intradiegetic and metadiegetic levels. That is, between their historical narrative, and the narrative that would emerge from players.

This tension can be further explored looking at Chapman's narrative arrangements (2016a, p. 119). These narrative arrangements aim to negotiate between 'ludonarratives', the narratives that emerge through player's play, and 'framing narrative', or the narrative that is not changeable by gameplay. In other words, between what I have called the metadiegetic and the intradiegetic levels of the historical narrative.

Open story structures (Chapman, 2016a, p. 130) are a type of narrative arrangement, where players' actions can have an influence over the main narrative of the video game, by determining the order of the story, ignoring or choosing fragments of it, or engaging

with specific situations. Participants' reliance on dialogue systems, complex storylines, multiple choices, outcomes, and actions, character customisation, and spatial exploration, are all in line with the idea of open story structures. Participants noticed the tension between intradiegetic and metadiegetic levels and discussed it in terms of how the narrative could change based on what players could do. They were aiming for historical narratives that gave players room for interpretation and for crafting their own experience but assuring at the same time their control over the overarching outcome of the narrative.

Similarly, open ontological structures (Chapman, 2016a, p. 129), are narrative arrangements that strongly privilege ludonarratives and offer very weak framing narratives. Theoretically, while still having an overarching framing narrative, this type of structures could allow for multiple historiographical approaches depending on the players' own subjectivity. In the workshops, one of the groups decided to make a puzzle video game starring historians. Their design included affordances like "exploring", "discovering" and "joining" knowledge together, but also led to the idea of "creating" and "constructing" a historical narrative. The group used both types of verbs to define their design: "discover" and "constructing". Regardless of their ambiguity, letting players craft a historical narrative suggests an open ontological structure. This is also the only design where the possibility of counterfactual history is hinted at.

As discussed before (see 2.3.c), open story structures, open ontological structures, and counterfactual history, are specific structures that previous researchers have aligned with a deconstructionist historiographical approach (Uricchio, 2005; MacCallum-Stewart and Parsler, 2007; Apperley, 2013; Chapman, 2013c, 2016a). Considering how participants also ended up using some of these structures, or at least similar approaches, I suggest that this tension between metadiegetic and intradiegetic levels should be targeted. I agree with the idea that, depending on the resolution of this tension, a historical video game could lead to different epistemological claims.

- On the other hand, participants focused on settings, accuracy, and fiction to deal with tensions between intradiegetic and extradiegetic levels. That is, between their historical narrative, and the general conceptualisations of history and video games that they perceived from their real-life context, public opinion, and academia.

During the design activity, participants also had to find a balance between their previous academic knowledge and what they believed could be comprised in a video game. This translated to a mediation between academic history and historical video games, that resonates with the tension between intradiegetic and extradiegetic narratives. To sort this, participants relied on conceiving their historical narratives within the boundaries of public history and referred to a history mediated by popular culture. This can be seen in how they relied on fiction and on existing video games to craft their narratives. But also, in how they negotiated between the historiographical perspectives of all participants:

PG3: But how is history made? People win money and power, and they do things to get it, and they are confined by cultural norms.

PI3: Different pasts, different ideas need to compete, and eventually (...) the stronger one will take over.

I have made emphasis during the analysis on the fact that participants were aware of historiography and acknowledged the differences between historiographical approaches (see 4.3 and 5.3.c). They even showed concerns towards the perspectives embedded in their designs, whether the design was ethnocentric or whether they acknowledged their own subjectivity. However, the negotiation between participants ended up with a combination of axioms that did not entail a clear epistemological approach but a mix of them. Even individual participants backed multiple approaches, like PA3, who made arguments for both historical accuracy (“it is a total bias in here that goes against real historical account”) and deconstructionist history (“history is a construction”). While these concepts about history might seem antagonistic, they cohabit without issues within the realm of public history. Participants realised the situation of their narratives within such space and relied on this to negotiate the historical value of their narratives. And while this mixture may difficult historiographical analysis, it also highlights history as a process of narrative creation and points towards the challenge of introducing new axioms to the general public.

In summary, the aspects that participants relied on to find a balance between diegetic levels and create a coherent historical narrative can be seen as part of a negotiation between player and developer on the one hand, and developer and academia on the other. In each case, it requires to situate the discussion within a certain narrative arrangement, or within a form of history. The composition of the historical narrative relies on these movements, inwards and outwards, to consolidate a concrete meaning.

5.4.c Further Considerations

Beyond this diegetic framework, there are a couple of things that need further considerations:

First, the normalisation or standardisation of certain types of historical video games. The fact that all groups of participants introduced a type of open story structure suggests to me that this aspect could have been either: (1) instigated by the themes and activities of the design workshop; or (2) derived from common examples of existing historical video games. While not discarding the first, I am inclined to contemplate the second possibility. When looking at participants' most common references, action-adventure-RPGs like *Skyrim* (Bethesda Game Studios, 2011), *Fallout* (Interplay Entertainment, 1997), *Fable* (Big Blue Box Studios, 2004), or *Assassin's Creed* (Ubisoft Montreal, 2007) are outstandingly noticeable, and they could have influenced their decisions during the design activity. Furthermore, two groups described their video games within the RPG genre, which I reflect guided them to include mechanics that they saw as inherent to this type of video games. It is possible that participants considered that RPGs were most suited for historical video games for their narrative focus, the immersiveness of first- and third-person camera perspectives, or the detailed visual representation of material culture and environments from historical settings. These aspects will be more in line with a reconstructionist historiographical approach, suggesting that this approach to history is also perceived as more adequate. However, open story structures can also be in line with a deconstructionist approach, because they offer the possibility to subvert historical narratives, select different paths, embrace several perspectives, and explore multiple outcomes. Thus, even when these types of video games may represent a standardised approach to history and entail traditional conceptualisations, they also can offer the right amount of flexibility for emerging narratives.

Second, during participants' debate activities I also encountered a tension between what was considered history and what was considered video game (see 4.2). I think this was also present during the design activity, as an overarching tension that comprises all diegetic levels. I contend that this tension is mainly produced by the trivialising properties of the ludic frame (Chapman and Linderorth, 2015, p. 13). The ludic frame entails a coating that covers our perception of video games. Within such frame, the meaning of themes and contents changes, acquiring a new local value: a token becomes a character,

a board map becomes a world, etc. This implies a trivialisation of meaning that can be a barrier to engage with historiographical discussions, because it fosters the prevalence of historiographical approaches that are popular or well known, in order to avoid depreciating the perceived historical value of the narrative. I think this might be why participants focused on historical accuracy and make such strict distinction between fiction and history. This presents a challenge when trying to explore deconstruction in historical video games. I discern there are certain historiographical concepts that are disregarded for being controversial, or rather, for not being recognised as historical among a general public.

The solution for this implies establishing a distance from either video games or history. On the one hand, ‘re-keying’ a video game (that is, presenting it as something with a different purpose), as either educational or academic (Goffman, 1986, pp. 79–80; Chapman and Linderöth, 2015), could allow to think about it outside of the ludic frame and address controversial topics. On the other hand, de-emphasising or recontextualising the historical narrative to create a distance with what is perceived as historical could be another solution. For example, one of the participants’ designs was set in a museum and gave players the role of historians aiming to create historical narratives. Such change of roles and context entails an ontological differentiation between past and history, it separates the act of writing history from that of re-enacting the past and could entail the necessary recontextualisation to engage with deconstruction within a ludic frame.

This example is also in line with the idea of “historying” (Denning, 2007, p. 102; Chapman, 2016a, p. 183). The concept of historying refers to the act of writing history. In relation to video games, it entails the capability to make players participate in the act of writing history. I also relate this concept to video games’ potential for engaging with disciplinary knowledge (Shaffer *et al.*, 2005). The core of this argument lies on the role of affordances in video games, and how they entail a form of learning by performing. Historical video games that embrace affordances associated with historying can foster a disciplinary knowledge about how history is made and can introduce further historiographical discussions and concepts. Thus, while the ludic frame may be problematic, it also allows to embrace fiction and subjectivity, engage with multiple interpretations, and explore different outcomes, which could, once again, be beneficial for further historiographical explorations.

Third, is the influence that the design workshop's activities might have had over participants' engagement with design. My goal with these activities was to encourage historiographical debates, particularly around concepts relevant for deconstructionist history such as narrative or subjectivity. While I tried to act as mediator during the workshops, my role setting the activities and managing the debate times also conditioned the outcome. In other words, as stated in the methodology (see 3.6), I recognise that the outcome of the design workshops would have been changed with another structure, or with different activities and themes. Regardless, participants' debates and designs prompted unexpected ideas that strengthened and substantiated the approach.

5.5 Chapter Summary

In this chapter, I have analysed how participants of the design workshops engaged with historical video game design. I was aiming to understand how people engage with the creation of historical narratives in historical video games and to identify what characteristics of the medium could be used for this purpose.

First (5.2), I showed how participants engaged actively with the design process, focusing on composing an enjoyable video game experience and creating a compelling historical narrative. They relied on existing historical video games as guidelines for their designs while emphasising the difference between video game and history. In this regard, I argued that public conceptualisations of history are highly influential also in the design and creation of new historical narratives. The design process also fostered participants' discussions about the medium, emphasising formal considerations of the different expressive components that create historical narratives within historical video games.

Next (5.3), I described participants' designs and detailed the discussions that led them to certain historical narratives. Participants envisioned complex historical narratives by building detailed settings, compelling stories, dialogue systems, and diverse characters. They aimed to tie mechanics to the historical narrative and gave players multiple choices, in line with the opportunities of the medium analysed in the previous chapter (see 4.4). I argued that the design activity forced participants to discuss historiography more than before, expanding on their previous discussions about accuracy and objectivity (see 4.3) and openly negotiating the approach of their game between themselves.

Finally, in the last section (5.4), I presented the outcomes of the design workshops by listing the different characteristics that participants discussed to create their historical video games. These characteristics are: meaningful interactions, story-driven historical settings, characterisation, goal-oriented narratives, multiple options and outcomes, use of historical references, and the inclusion of fiction. I proposed a diegetic framework to understand how historical narratives are presented in historical video games.

Using this diegetic structure, I analysed participants' engagement with design and considered the formal aspects that they used in relation to existing theorisations. I suggested that participants used the mentioned characteristics to address tensions between different diegetic levels of their historical narratives. They used open narrative arrangements to mediate between their video games' narratives and the player's emergent narratives. Similarly, they relied on public history to negotiate the relation between their video games' narrative and academic history. I reflected on the possibilities of focusing on these tensions and using these characteristics to explore a deconstructionist approach to history. Lastly, I made further considerations about the standardisation of models for historical video games, the ludic frame surrounding engagement with historical video games, and the design experience in general.

After analysing participants' engagement with historical video game design, in the next chapter I have described and analysed the design process of a historical video game prototype, created to convey and explore a deconstructionist historiographical approach.

Chapter 6. Designing *Time Historians*, a Deconstructionist Historical Video Game

6.1 Chapter Overview

In this chapter I describe and analyse the design process behind *Time Historians* (Cruz Martínez, 2019), a historical video game prototype inspired by, and aimed to explore, a deconstructionist historiographical approach. The objective of this chapter is to examine how the deconstructionist approach inspired the design principles and goals, and how the design process encouraged further reflections about the potential of historical video games to explore this historiographical approach. I used the outcome of the design workshops to inform the design process and worked iteratively creating and improving several versions of the prototype. By analysing this process, I aim to scrutinise the medium and its capabilities for conveying deconstructionist history.

To do so, in the following pages I focus on: detailing the design principles, inspirations, and goals (6.2); describing and analysing the early design decisions, and the outcomes of early low-tech and digital prototypes (6.3); and describing the final prototype and its characteristics, explaining the purpose of each of them and how they relate to a deconstructionist historiographical approach (6.4).

6.2 Design Principles

After running the design workshops (see chapters 4 and 5) the next step of the research was to design a historical video game prototype. For the design of this prototype I aimed to explore a deconstructionist historiographical approach. I relied on previous research regarding historical video games and historiography (see 2.3), and on the outcome of the design workshops (see 5.4).

There are also some design constraints, in terms of resources and practicality, that I considered since the beginning of the project (see 3.4.b). I made the final prototype for PC using the personal edition of the video game engine Unity Engine (Unity Technologies, 2005) and the C# scripting language. This was a software and a language that I was already familiar with. I decided to stick with 2D sprites or illustrations for the

visual elements of the video game, as I had no expertise in 3D modelling, and it did not seem relevant⁴. Finally, I also decided on using video game controllers for the input to facilitate participants' engagement with the prototype.

In the previous chapter (see 5.4), I proposed a diegetic structure to understand how historical video games can convey historical narratives. I suggested that in the negotiations between meta, intra and extradiegetic levels, there was room for introducing and exploring historiographical approaches. When engaging with the design of the prototype my general aim was to play with the tensions between diegetic levels in both directions: between the video game's narrative and the player's narrative; and between the video game's narrative and the discourses about history and historical video games found within public history. On the one hand, I wanted to encourage players' explorations and interpretations of the historical narrative, giving them free range to construct their own narratives. On the other hand, I aimed to use the video game to question existing axioms or historiographical paradigms and introduce deconstructionist ones. For example, suggesting ideas like history as a narrative that we construct, or as a subjective and interpretative process.

Finally, I decided to stress the tensions between narratives by playing with 'metalepsis' or transgressions of one diegetic level into another (Genette, 1983, pp. 234–235). This occurs when one of the diegetic levels refers to the other. For example, when the player is directly addressed through the video game's characters or menus, breaking the immersion of the game. Such metaleptic strategies can invite for a consideration about the medium itself and its intentionality, as they allow to reveal the diegetic structure and critically engage with the historical narrative.

Having all this in mind, I defined the following design principles:

⁴ Initially, I considered that 3D modelling could be relevant for exploring 3D environments and creating realistic representations. However, in case of wanting to explore 3D environments, there were alternatives to do so without including 3D models. I took into consideration examples like *Doom* (id Software, 1993), *Paper Mario* (Intelligent Systems, 2001), or more recently *Octopath Traveler* (Square Enix, 2018), that explore 3D environments using 2D sprites. And secondly, as the goal was to explore deconstructionist history, an approach that criticises the possibility of an objective representation (Munslow, 2006, p. 81), conveying realistic representations would not be necessarily needed.

- **Meaningful affordances**

I have referred to the concept of affordances in the literature review as a set of possible interactions between a given environment and humans (Linderoth, 2013, pp. 3–4). This concept was not used by participants of the design workshop, but they did talk about mechanics, actions, and objectives, set in relation to virtual environments. For participants, integrating these mechanics with the historical settings in meaningful ways was a main concern. Because of this, I set as one of my first objectives to identify affordances that meaningfully explore history through a deconstructionist lens.

- **Multiple choices**

Participants also relied on crafting historical narratives with multiple choices (see 5.3). I associated this emphasis on choices with the tensions between metadiegetic and intradiegetic levels. I have also associated this with Chapman's (2016a, p. 119) narrative structures, namely open story and open ontological structures, arguing that they provide a framework to organise this tension that is similar to what participants proposed in their designs, giving players a vast range of possible choices and decisions over the historical narrative. Such structures can foster deconstructionist ideas, because they diverge from linear narratives and question the primacy of a unique interpretation of the past. As such, I decided to consider the idea of multiple choices as part of the prototype.

- **Customisation**

In addition to narrative structures that favoured players' narratives, I also decided to include customisation options. Customisation allows players to modify values and assets within the video game to fit their preferences. As such, it could foster player's engagement with the historical narrative. Participants of the design workshops referred to customisation as well (see 4.4.b). Because of time constraints, the final prototype does not feature customisation as I intended. However, during the design process this was another core aspect that guided many of the decisions that I took.

- **Highlight reflexivity**

Discussing the possibilities of video games to embrace deconstructionist history, Kee (Kee, 2011, p. 433) proposed the inclusion of gnoseological narrative forms. These forms

entail an open-ended pursuit of meaning, where the goal is to actively reflect around a phenomenon or situation (Todorov, 1971, p. 40). Such narrative form can be found in video games that are defined as deconstructionist, which heavily rely on reflecting about their own role as stories (see 2.4.c), mainly through the use of metaleptic strategies. For example, in *The Stanley Parable* (Galactic Cafe, 2013) players are interrogated about their actions and how they are able or unable to change the narrative of the video game, in an exercise to explore the limits of agency and free will. In *UNDERTALE* (Toby Fox, 2015) players are introduced to an RPG video game where common traits like combat, experience points, and levels are optional and explicitly questioned by the video game's framing narrative. In *Metal Gear Solid* (Konami, 1998) players are required to change their controller to a different port in order to beat an apparently invincible enemy that can read player's movements otherwise. I used these examples to guide the design of the prototype, realising that a deconstructionist historical video game should invite for a reflection about its own historical narrative, about history as a narrative process, and about historical video games as a medium.

- **Playing with uncertainty**

The video game examples mentioned above all have hidden or implicit interactions that the player must unveil. This allows to further embrace video games' uncertainty and ambiguity (see 2.3.c), basic features of play (Caillois, 2001, p. 9), that favour self-reflexive historical narratives and can be used to explore a deconstructionist approach (Uricchio, 2005, p. 333; Gish, 2010, p. 168; Apperley, 2013, p. 190; Chapman, 2013c, p. 141; Salvati and Bullinger, 2013, p. 156; Copplestone, 2017, p. 419). Thus, I considered the inclusion of hidden mechanics as a valid resource for the design.

- **Metagames**

The examples above also constitute a type of 'metagame'. Boluk and LeMieux (2017, p. 25) define metagames as "a common label for games *about* games, games *within* games, games *around* games, and games *without* games". In other words, games that in some way attempt to break or subvert their own mould. These examples can be considered metagames in the sense of video games *about* video games. Their reflexivity and ambiguity are mainly oriented towards themselves, to how they operate as games, convey ideas, or embrace expectations.

Perhaps metagames can also be associated with the concept of ‘paidia’, a type of play without pre-established rules (Caillois, 2001, p. 27), that Kee (2011, p. 433) related with a deconstructionist historiographical approach (see 2.3.c). A game where players are meant to set their own rules can represent a game *within*, and/or *without*, a game. Regardless, I think any type of video game that encourages a form of ‘metagaming’, for example by allowing customisation, ‘moding’, or allowing players further control over the game experience, can also increase uncertainty and foster reflexivity when creating historical narratives. Because of this, I decided to aim for incorporating a type of metagame in the final prototype.

- **Ephemerality and performativity**

I also decided to incorporate the ideas of ephemerality and performativity. When considering deconstructionist historical video games, Chapman (2013c, p. 235) refers to Munslow’s concept of ‘expressionist historying’ (Munslow, 2010, pp. 217–218), the idea of history as an event, being constantly produced, multiple times, and without chance of replicating. I think this also resonates with Jean-François Lyotard’s notes on the postmodern condition (1984, p. 44) where knowledge is estimated in terms of its performativity: producing more with less effort. Deconstructionist history corresponds with the postmodern legitimization of knowledge, where academic (or social) paradigms tend to benefit ephemeral and performative histories, that can be easily mass produced and consumed, and can also generate more interpretations and discussions. I thought that this idea of a history that is both, ephemeral and performative, seemed reproducible in the format of a video game.

- **Ludic framing**

In the literature review, I discussed the idea of the ‘ludic frame’ surrounding historical video games (see 2.4.c). I have then highlighted the presence of this ludic frame in participants’ discussions and designs, showing how it hindered the discussions about historical video games and historiography by separating video games from history and reinforcing traditional historiographical approaches (see 4.3). Despite this, I contend that the ludic frame can be useful to engage with deconstructionist ideas, because it recontextualises the historical narrative into a position where it can openly embrace with fiction, subjectivity, and multiple interpretations. For this reason, I wanted to explicitly

tap into the ludic frame, avoiding any possible ‘re-keyings’. In other words, I wanted participants to engage with the prototype as if it was a commercial video game, without questioning it as an unfinished, educational, or even a scholarly video game. Thus, I purposely took the decision to include elements like menus, title screens, and cutscenes, that created the appearance of a finished commercial video game.

- **Intentionality**

Finally, previous literature has focused on associating video game types and genres with concrete historiographical approaches (Uricchio, 2005; Kee, 2011; Chapman, 2016a), finding many difficulties and contradictions along the way (Uricchio, 2005, p. 335; Chapman, 2016a, p. 150). I argued earlier that this is due to the complexity and multimodality of the medium, that highlights meaning negotiation (see 2.4.c). While my initial impulse was to identify a genre that could specifically develop deconstructionist ideas, I realised soon that all the aspects mentioned in this section can be integrated to any genre or type of video game.

For example, mechanics in an FPS can be used to convey reflection over history making, if instead of a gun the player holds a camera in the middle of a civil war and has to take pictures for the daily edition of a newspaper. While a mechanic like shooting in an FPS may seem limiting, it can still be used to craft stories about how history is made and to reflect on the process of crafting a historical narrative. In other words, there is no unique genre or type of video games that allows to explore a deconstructionist historical video game, but rather any genre can be used to explore any historiographical approach.

The exploration of a specific historiographical approach relies, then, on openly using historiography to inform the design of the prototype. And this is where intentionality comes forward. As I argued earlier (see 2.4.c), intentionality does not mean that the intended conceptualisation of history will reach the player, nor that the interpretation of the author is more important than that of the player. But it does imply recognising that we can use certain ideas to inform our framing narratives and the mechanics we choose, and that we can purposely do so to encourage a further discussion of such ideas.

In summary, these are the core design principles that I defined for the prototype. My intention was to focus on these aspects and how they help to explore a deconstructionist historiographical approach.

6.3 Design Process

With the design principles introduced in the previous section, in this section I describe and analyse the early design process, including the initial ideas, low-tech prototypes, and digital prototypes. As detailed in the methodology chapter (see 3.4.b), the design process took about ten months to complete, and included several stages with multiple prototypes produced within each stage.

6.3.a Identifying Affordances

Going into the design process, I initially aimed to identify relevant affordances that could allow for exploring ideas from deconstructionist history. As mentioned in the previous sections, metagames served me as an initial lead. From there, I stumbled across the genre of ‘creative judgement games’ (CJ games), which offers affordances that I found relevant for my design experiment.

CJ games are those in which the ‘content’ and the ‘validity’ of a given choice or input is decided by the ‘creative judgement’ of the players. In CJ games players are presented with a common problem or situation, and they must craft an answer to it by selecting among a range of possibilities or creating their own. Then, players consensually decide on the validity of their own answers, choices, or input. Whether a player’s choice is correct for the game, or whether it moves players towards winning the game, depends mainly on players’ judgement.

I use the wider term of ‘games’ instead of ‘video games’ to talk about this genre because it exists across multiple formats. The origins of this genre can be identified in parlour and folk games like *Definitions* (Cassell, 1881, p. 21) and *Fictionary* (Sachs, 1997). These are word games where the objective is to identify the definition of a random word. Players write down their definitions and present them, trying to either identify the correct one or vote for the most fitting one.

The card game *Balderdash* (Robinson and Toyne, 1984) is based on *Fictionary*, but instead of writing words, it adds a deck of cards with words and definitions. *Apples to Apples* (Kirby and Osterhaus, 1999) moved from definitions to word associations, introducing two sets of cards, one with nouns and another one with adjectives, that players have to match and judge, either by voting between them or by designating a player with

the role of judge for each round. *Snake Oil* (Ochs, 2010) follows the same concept but letting players justify their choices. Similarly, *The Metagame* (Macklin, Sharp and Zimmerman, 2011) and *Cards Against Humanity* (Dillon *et al.*, 2011) brought decks with sentences instead of words, with players having to pick words each round to fill a sentence, and a player acting as judge selecting the most fitting one.

There are not many more examples besides these, and as it can be seen, most of the games are reinventions of their predecessors with few additions and rule changes. *Bad Medicine* (Hova, 2015) and *Dixit* (Roubira, 2008) are the most complex of these card games because of their unique rulesets. The latter is particularly interesting because it relies on images instead of written words. The player has to tell a story inspired by one of her cards, and the others have to match that story with one of theirs, and then vote trying to identify which card originally inspired the story.

When it comes to video games, within *The Jackbox Party Pack* (Jackbox Games, 2014, 2015, 2016, 2017, 2018), a bundle of party video games, there are CJ examples like *Quiplash XL*, *Quiplash 2*, *Survive the internet*, *Bracketeering*, or *Mad Verse City*. While relying on similar rulesets and principles from the above-mentioned card games, these video games are exceptionally creative in their themes, moving from filling sentences to creating songs or navigating social media. Examples like *Patently Stupid*, *Civic Doodle*, and *Tee K.O.* are particularly interesting in their use of drawings instead of words, as well as *Earwax* that relies on sounds. Besides these examples, I have not found more CJ video games. I should note that this is not a conventional genre, and as the chronology of these games shows, it has become increasingly more popular in recent years.

The reason why I decided to focus on this genre is because CJ games fit with many of the design principles I set before, and thus it can be easily applied to convey and explore a deconstructionist historiographical approach. First, CJ games integrate an open-ontological narrative structure, where the framing narrative only sets the resources for players to craft their own story. They offer plenty of customisation options just by allowing players to decide on the content and its validity. They further embrace uncertainty with this looser criterion, and they can be defined as metagames as they encourage games ‘around’ and ‘within’ games. Some CJ examples like *The Metagame* (Macklin, Sharp and Zimmerman, 2011) and *Cards Against Humanity* (Dillon *et al.*, 2011) also entail games ‘about’ games, with references to other games in their cards. CJ

games also tend to be aimed towards creating multiple narratives at a fast pace, demonstrating the ideas of ephemerality and performativity. And finally, they are usually referred to as ‘party games’, conceived as pure entertainment and not as serious or educational titles.

In addition to all this, I noticed affordances found in CJ games resonate well with a deconstructionist historiographical approach. In the literature review (see 2.3.b), I defined the deconstructionist historiographical approach as one that differentiates history from “the past”, addressing history as a narrative about the past, created in the present (Munslow, 2012, p. 7). The focus of this approach is on how such historical narratives are created, what form they take, what discourses surround them, and how such aspects influence the outcome. I recognise that historical approaches are not strictly attached to video game genres, and that these ideas can be explored through other genres and mechanics. This means that there is no preferred genre for a deconstructionist historical video game, but rather, any type of video game could allow to explore any historiographical approach. In other words, the outcome of the project is marked by subjective and fortuitous decisions that need to be addressed and justified.

In this case, I chose CJ because it has certain mechanics that can be easily aimed towards exploring the concepts of subjectivity, interpretation, and consensus. Players usually must: (1) select among a range of choices, based only on their own criteria; (2) interpret given situations; and (3) find a consensual solution, either by voting or by taking turns to judge. To me, these three actions resonate with a deconstructionist historiographical approach, because they symbolise and emphasise the process of creating historical narratives and knowledge. Rather than engaging with the past, they imply a direct engagement with the process of making historical narratives that acknowledges meaning as contentious.

Design-based research that relies on existing video game genres can be seen as a limiting approach. Hiriart (2016, 2017) argues that picking and adapting a genre impedes going beyond already proven formulas. However, while I agree with his statement that experimenting and creating is the only way to better understand historical video games, I think engaging with genres should not be disregarded. First, because genres are unavoidable, as we rely on our previous experiences and ideas whenever we think about new ones, and no matter how much we diverge from a typology, we always end up relying

on these classifications to make sense of what we create. But also, genres can be a good departing point for identifying issues and prompting questions. What is important is to have a conscious and critical approach to genres. Working on a design using a genre as starting point can lead to an open approach if the focus is on identifying what makes the genre work, how it functions, and if there is room for compromises. In other words, if the genre becomes a tool to explore ideas. I approached CJ games in this way, deconstructing the genre itself and reconfiguring it to fulfil my expectations.

Finally, CJ games can include elements from ‘trivia’ and ‘bluffing’ games, but there are clear lines that separate these genres. First, in trivia games each problem is associated with a single possible solution that usually comes from a previously established body of knowledge. This means that the validity of a player’s answer depends on how much it approaches the ‘right’ answer set beforehand. Early CJ games, like *Fictionary* and *Balderdash*, are on the borderline between trivia and CJ. What distinguish them as CJ games is that, besides having a unique correct answer, players can also present fictional options and get points if others select them. This means that, in terms of the game’s objectives, the ‘fictional’ answers have the same or more value than the ‘correct’ answer, depending on how players interpret a given situation. Thus, while tied together, trivia and CJ games can be distinguished by this endorsement of a privileged answer.

This is also one of the reasons why I found CJ games interesting for exploring deconstructionist history. Deconstructionist historians, while not denying the existence of historical facts (Munslow, 2012, pp. 44–45), understand the past as something that can only be accessed through the interpretation of history, and thus it is always mediated and subjective. While the trivia genre reinforces the idea of a single possible answer to a question; CJ games are open and oriented to question the legitimisation of any answer, which corresponds with the deconstructionist rejection of privileged interpretations of the past.

Similarly, bluffing games are about convincing other players to make decisions on your behalf. Usually each player has hidden and personal objectives that cannot be revealed. Some CJ games like *Cards Against Humanity* or *Dixit* can lead to this if players attempt to use their choices to deceive other players. And there are also similar judging or voting systems in both types of games. However, there is a difference in terms of objectives and motifs, because CJ games generally prioritise making decisions by interpretation and not

by persuasion. Players are invited to set their own criteria of judgement rather than follow a given agenda. Still, the line between them is thin and prone to be crossed, but as there are relatively few CJ games, it is possible that further distinctions could develop in the future.

CJ games are relatively new and there is a lot of exploration yet to be done. The existing games tend to be very similar to each other, even sharing rules. For example, *Apples to Apples*, *Cards Against Humanity*, *Snake Oil*, *Earwax*, and the game mode “Special Occasion” of *The Metagame* all share the same rules but use different decks of cards and themes. The same thing happens with *Dixit* and the game mode “Get a Clue” of *The Metagame*; or with *Fibbage* and *Fictionary*. Regardless, I think it was important for the design process to acknowledge the tradition of CJ games and the possibility to rely as well on trivia and bluffing elements, without losing sight of the core ideas to explore with this genre: subjectivity, interpretation, and consensus.

6.3.b Low-tech Prototypes

After identifying a genre to work with, my next objective was to explore it and evaluate its possibilities. I undertook the design of low-tech prototypes where I could try different rulesets and settings. My aim was to: (1) analyse how the concepts of subjectivity, interpretation, and consensus could be further emphasised; and (2) how history could be introduced through this genre.

I developed seven physical card games in total, with each design serving a specific purpose or testing concrete aspects. The testing of these prototypes was informal, but nonetheless led to productive conclusions. I succinctly describe the prototypes and their outcomes below, but further description and reasoning for these prototypes can be found in the appendix (see 10.4)



Figure 13 - Low-tech prototype 1 and 2. Board and card decks.

- I created the first and second low-tech prototypes (see Figure 13 and appendices 10.4.a and 10.4.b) to try different rulesets from popular CJ games like *Cards Against Humanity* (Dillon *et al.*, 2011) and *Dixit* (Roubira, 2008), checking which ones allowed for better outcomes. I found that rulesets that favour consensus, like *Dixit* (Roubira, 2008), were more likely to prompt debates among players, and that, despite using the same ruleset, the content and disposition of the cards was enough to foster an original experience in players.



Figure 14 - Low-tech prototype 3. "Sentences" and "Nouns" card decks.

- With the third low-tech prototype (see Figure 14 and appendix 10.4.c) I introduced the theme of history using the exact same structure and rulesets of *Cards Against Humanity* (Dillon *et al.*, 2011) and *The Metagame* (Macklin, Sharp and Zimmerman, 2011). Instead of popular culture references, I introduced nouns related to history and historiography, and sentences with similar structure to those in history books. I found that giving players multiple choices allowed them to sort out the terms that were unfamiliar for them. While there was no problem adapting the content, I further confirmed that this ruleset did not favour consensus, and that the criteria for judging also varied from player to player, with some aiming for accurate answers and others for puns.

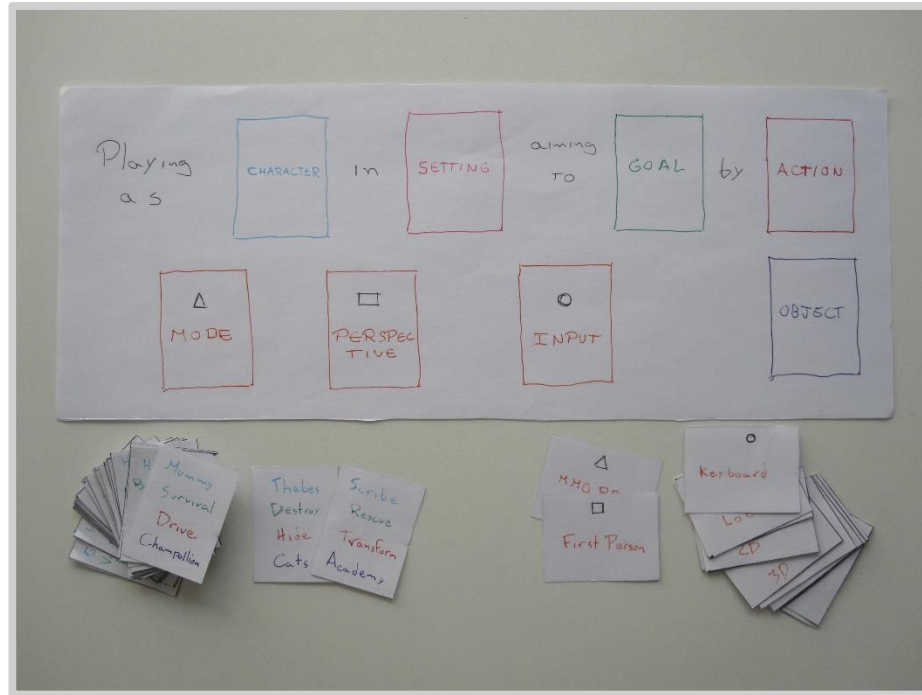


Figure 15 - Low-tech prototype 4. Board and card decks.

- The fourth low-tech prototype themed around ‘making historical video games’, aimed to include, not only a deconstructionist historical approach, but also a deconstruction of video games as a medium. The prototype included references to both, history and video games, and encouraged players to create a concept for a historical video game with their cards. This prototype, while it followed existing rulesets, entailed more complexity, with longer rounds, several stages, and multiple types of cards (see Figure 15 and appendix 10.4.d). Ultimately, engaging with both, history and video games, and from a more technical or practical perspective, generated confusion as people were less familiar with the themes.

The other three low-tech prototypes were variants on the third one, using the same cards but changing the ruleset slightly to include more opportunities for consensus:

- Low-tech prototype five had players picking cards from the table instead of their hands (see appendix 10.4.e). The cards were upside down, and players could only have one in their hands at a time, so they were forced to switch in order to find one they felt most fitting for the round. Having this shared set of cards prompted new interactions, where some players tried to hide or move around cards that they liked but were unsure about.

- In low-tech prototype six (see appendix 10.4.f) I added a set time for debate, given to each player to present and justify their choices. This was inspired by a similar mechanic in *Bad Medicine* (Hova, 2015). However, this exponentially increased the duration of each round, and less eloquent players struggled engaging with the game.
- Finally, low-tech prototype seven (see appendix 10.4.g) integrated the voting system from *Dixit* (Roubira, 2008). This was the low-tech iteration that ended up inspiring the final prototype, but it was not exempt of criticism, mainly because players were unsure about the objective of the game, and whether they should vote for the most adequate or the most humorous answer. Regardless, I feel this doubt can be useful to expose the tension between historical video games as historical or as entertainment, embedded by the ludic frame.

Ultimately, these low-tech prototypes allowed me to better understand the genre of CJ, in terms of how it functions and how it can relate to history. The simplicity of the mechanics and rules allowed players to comfortably engage with these games. Furthermore, these simple actions like choosing, voting, or presenting, allowed for complex outcomes, like creating narratives and arguments, judging interpretations, finding agreement, or recognising other perspectives. I recognised in these interactions a possibility for critical engagement with historical narratives. Furthermore, I was able to identify different ways to approach the genre by emphasising different mechanics. The relevance of debating, voting, or selecting could be adapted depending on which concepts are meant to be explored.

On the other hand, history seemed to adapt well to this genre. Historical texts were easily adapted to known CJ formulas, and informal testing of these versions showed a good reception from players. What is more important, when combining affordances from CJ games with history, it was clear that the idea of history as a narrative construction was being emphasised, and that the concepts of subjectivity, interpretation, and consensus were being set in relation to historying, or the process of writing history (Denning, 2007, p. 102). By contrast, using the theming of ‘historical video games’ for the fourth low-tech prototype showed disadvantages, as the focus shifted away from historying. A crucial part of CJ games comes from players’ interpretation of the game’s content, which means that their familiarity with the theme of the game and their previous knowledge about it also

need to be addressed. I concluded that in order to explore deconstructionist history I needed to narrow the scope of themes and focus only on history, using specific references that players will recognise.

Furthermore, I also decided to avoid using an explicit gnoseological narrative (Todorov, 1971, p. 40). As seen in the literature review (see 2.3.c), this form of narrative, centred around a quest of meaning such as “what is a historical video game?”, is suggested by Kee (Kee, 2011, p. 433) as a component for a deconstructionist video game. But upon trying to present this narrative explicitly through the low-tech prototypes, asking players to define history or create historical video games, I found that this approach generated disengagement and confusion among informal testers. Some players testing the prototypes felt discouraged about the theme or about working with first order concepts. The challenge I set for the upcoming prototypes was on how a similar gnoseological narrative can be introduced indirectly, avoiding these negative reactions.

Finally, CJ games seem to entice conversations among players, especially when making choices or finding consensus. In this sense, debating is a tacit part of CJ games. The fact that some CJ games have integrated debates in their mechanics could be just a form of assimilating an inherent element of the genre. Regardless, I decided to aim for creating situations that prompted debate and consensus. After the results from piloting the sixth low-tech prototype, I decided not to establish specific times for debate, but rather let players engage with debating at their own pace. In this sense, out of all the low-tech prototypes, the ruleset from the second low-tech prototype was the one that encouraged more discussions, mainly because of the voting mechanics borrowed from *Dixit* (Roubira, 2008). Because of this, I used the same ruleset for the seventh low-tech prototype, as well as for the final video game prototype.

I also decided to stick with a local multiplayer video game for the final prototype. Although local multiplayer may not be a requirement for CJ games, it favours the emergence of open discussions. Furthermore, local multiplayer adapted well to the technical and time constraints of the design, as well as for evaluating the prototype later.

After reaching these conclusions, I decided to stick with CJ games for the design of the historical video game prototype. However, there was still a major concern. These low-tech prototypes so far consisted exclusively of card games, and the inspiration for them

came also from non-digital examples. The next challenge in the design process was to adapt CJ to a video game format.

6.3.c Digital Prototypes

Using the previous low-tech prototypes as blueprints, I started working on setting the basic coding and structure of the video game prototype. The main challenge at this stage was to differentiate this video game prototype from the previous card games. My aim was to identify aspects of the medium that could be used to enhance the CJ genre and the deconstructionist approach of the game.

I developed two digital prototypes at this stage. One of them consisted of experimentations around the inclusion of digital space (see appendix 10.5.a). Space is regarded as a defining and structuring aspect of video games (Aarseth, 2001, p. 154; Juul, 2005, p. 188) and of historical video games because “space determines what historical narratives the game can support by structuring what can be done by players and by functioning as a means of storytelling for developers.” (Chapman, 2016a, p. 100). For the most part, CJ video games have a limited exploration of space, relying only on representing user interfaces. By contrast, historical video games tend to use space as ‘narrative gardens’ for an aesthetic experience of historical representations (Chapman, 2016a, p. 101), or as ‘spatial canvases’ that provide tools and structures to create historical narratives above them (Chapman, 2016a, p. 104).

One of the ideas emerging from this stage was to include explorable historical environments that will work as the card deck of the low-tech prototypes: providing players with the words or the data that they could use to create their narratives. In this sense, instead of drawing cards randomly, players will navigate a virtual space looking for information. I developed several iterations, exploring environments with different shapes, perspectives, and movements (see Figure 16 and Figure 17). However, further extending the affordances of CJ in a way that they interplay with representational space proved to be a considerable endeavour. I wanted to add opportunities to discuss and debate the data collected, but I could not find a way to combine these affordances with the spatial exploration, and due to the limited time and scope of the project, I had to find more practical alternatives.

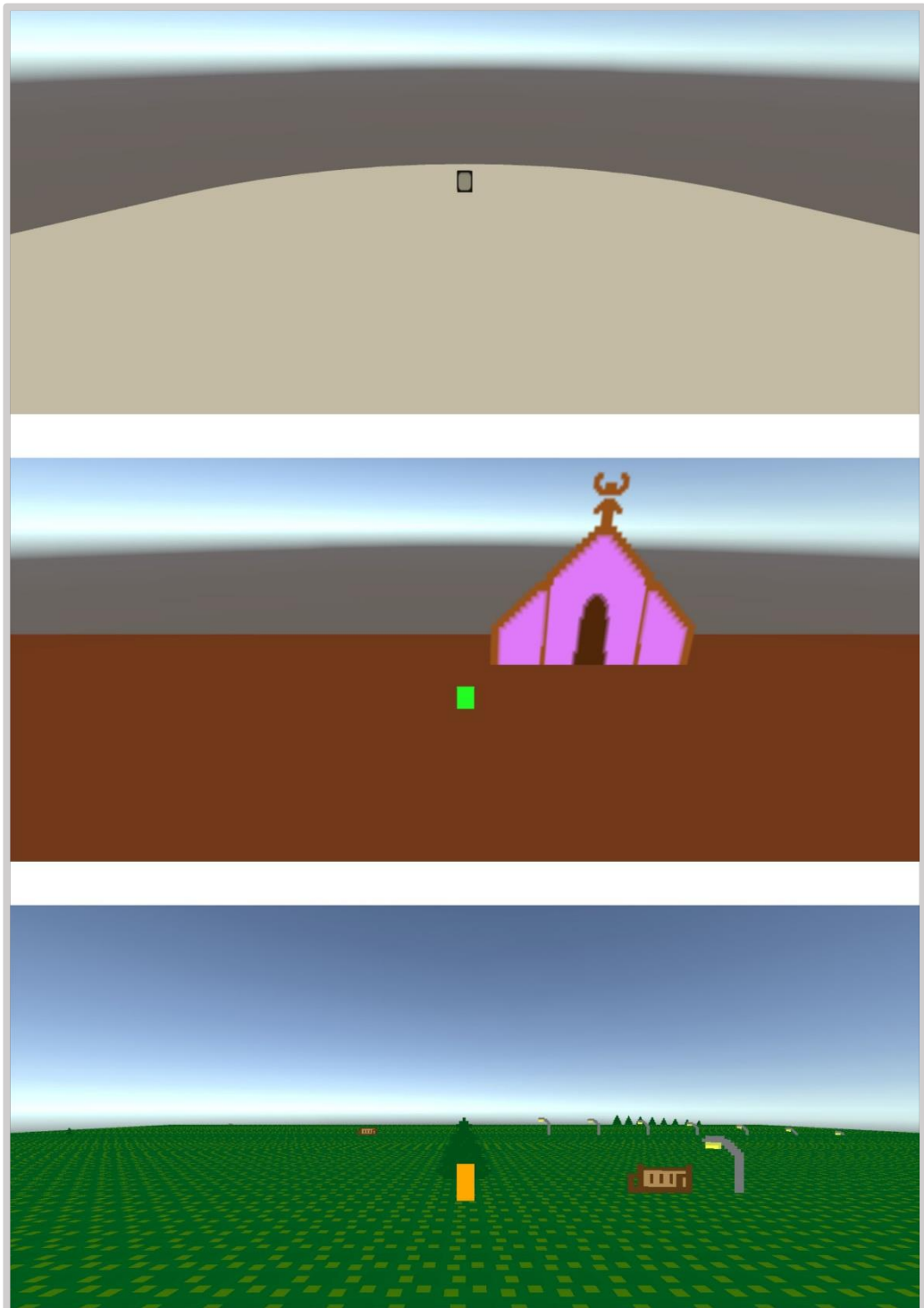


Figure 16 - Captions of digital prototype 1. Several iterations of spatial and movement experimentations.

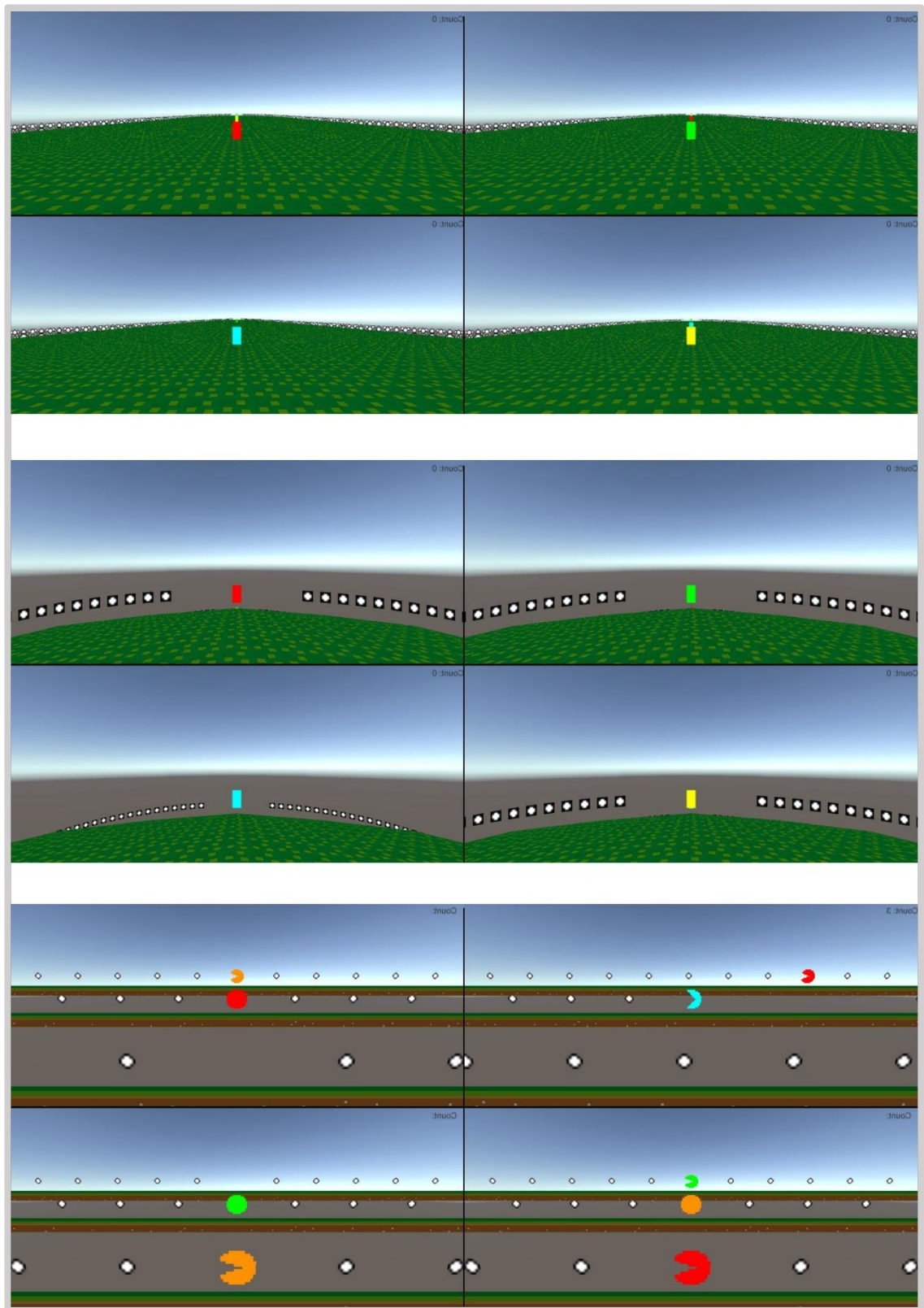


Figure 17 - Captions of digital prototype 1. Several iterations integrating local multiplayer split-screen with different spatial and movement arrangements.

As an alternative, I created a second digital prototype that was essentially a digital adaptation of the last low-tech prototype (see appendix 10.5.b). The video game format required some noticeable changes. For example, interface design became relevant, mainly in terms of how to distribute information through the screen and not through cards, or how to represent and identify players' input (see Figure 18). Managing times and deciding on input methods were also new considerations that the format entailed. And finally, but most importantly, explaining and managing the rules and objectives of the game (see Figure 19).

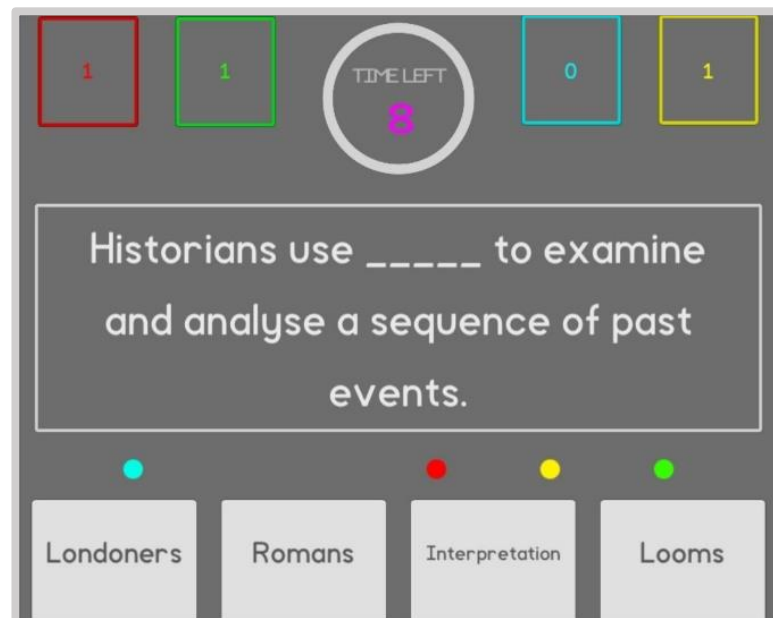


Figure 18 - Caption of digital prototype 2.

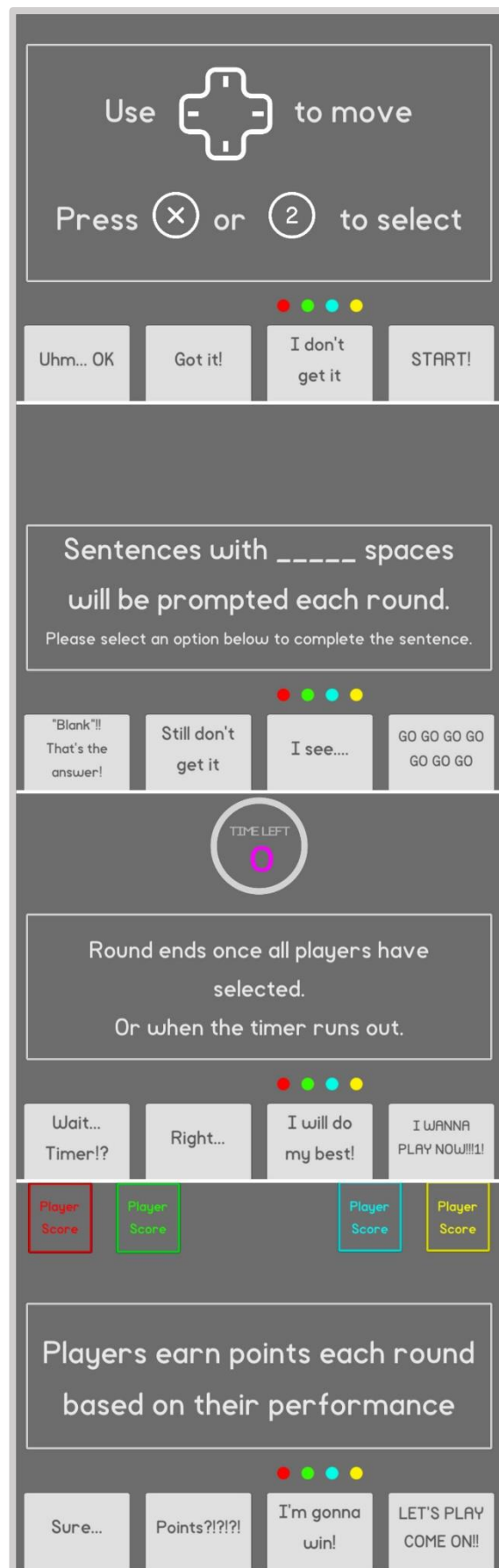


Figure 19 - Captions of digital prototype 2. Instructions sequence.

I intentionally designed this version trying to hide from the player the voting mechanics of the game. In contrast with other forms of games, video games can have hidden rules, objectives, and mechanics that players do not need to initially know⁵. In this case, I wanted to see if people testing the prototype will realise the need to find consensus, and if such realisation would prompt debates. While the testing was informal, the feedback was still useful at this stage, indicating key changes regarding how interface, time, and input was set, but also on how rules and information needed to be presented to the players.

To summarise, moving from card game prototypes to a video game prototype entailed crucial challenges. It was possible to translate the core mechanics of the genre to a digital format, as previous CJ video games have shown (Jackbox Games, 2014), but it was not clear what would this format add to the genre in order to differentiate the experience or enhance it. Some CJ video games, like *Quiplash XL* or *Civic Doodle*, involve ‘skeuomorphism’, digital representations of physical objects (Gessler, 1998), in these cases virtual cards or notepads, whose attributes are no longer functional but merely ornamental or referential. This could suggest that a digital format is not mandatory, and these video games could have been card games. However, other examples do entail features that card games would not be able reproduce. For example, *Earwax* includes sounds, and *Bracketeering* uses percentages instantly calculated from the choices of players all around the world to establish the validity of an answer.

Video games’ multimodality also refers to the multiple layers of the medium’s framing narrative that enables players’ engagement. When engaging with the creation of these prototypes I realised that I had to rely, not only on mechanics and historical references, but on everything that the virtual environment had to offer and redirect all these tools towards a deconstructionist historiographical approach. This allowed me to consider video games not as a mere collage of media, but as a cohesive multimodal medium that offers a unique form of mediating content (Rokeby, 1995, p. 133; Wolf, 2001, p. 32; Günzel, 2012, p. 32). As I describe in the next section, my goal for the final prototype was to integrate aspects that I was overlooking at this stage, like visual representations

⁵ Some board games, like Brenda Romero’s *Train* (Brathwaite, 2009) hide crucial information to the players until the game is over. However, this information only changes and contextualises how players perceive their actions, it does not change how the actions took place. By contrast, video games can hide information that changes the development of the game without the player knowing. This is because players are not the ones in charge of processing the actions and outcomes following certain rules. Instead, this is done by the computer.

and storytelling, to help creating meaningful affordances and to convey a deconstructionist historiographical approach.

6.4 Final Prototype: *Time Historians*

In this section I describe the final prototype designed for this research, detailing and reasoning the different aspects included in the design. The final prototype developed is a CJ video game called *Time Historians* (see appendix 10.6.a). It is a local multiplayer PC video game designed for four (4) players. The story is set in a dystopian future where academic history and historical records have disappeared. Players take the role of ‘new historians’ and are tasked to travel back in time gathering data. Afterwards, they have to decide together on how to complete the corrupted historical records with their data. The video game is meant to be played using video game controllers and it takes around 15 minutes to complete, although it can be played multiple times.

The design of this final prototype took around five months to complete, going through multiple versions in which content was added and tweaked (see appendix 10.6.b). My aim through this final design process was to expand on the previous prototypes while addressing video games’ multimodality, using storytelling and visual images to further convey a deconstructionist historiographical approach. I describe the core aspects of the prototype bellow.

6.4.a Creative Judgement

For *Time Historians* I followed a similar structure than other CJ games. There are four distinguishable acts within the prototype. The first act consists of a cutscene, that introduces the framing narrative of the video game through a brief text accompanied by a series of images (see Figure 20 and appendix 10.6.b).

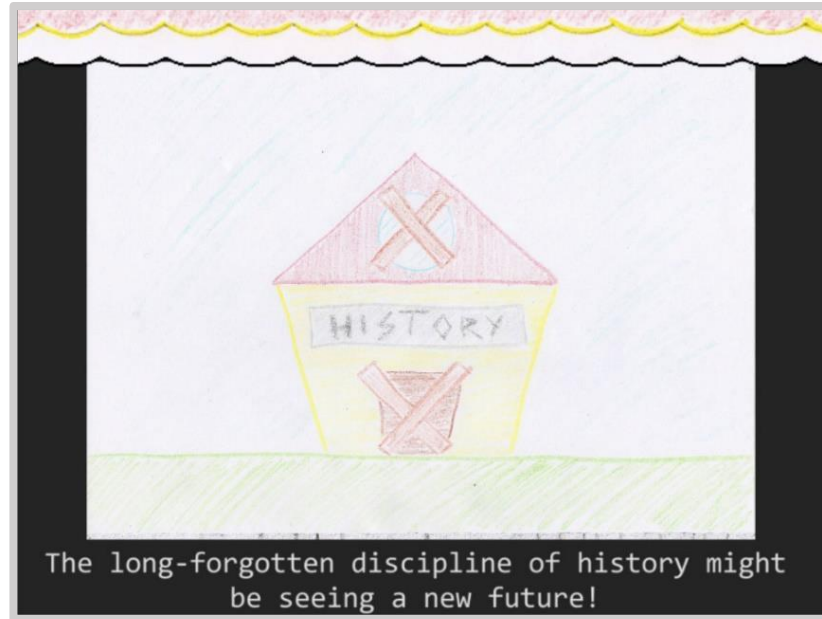


Figure 20 - Caption of “*Time Historians*”. Opening cutscene sequence.

In the second act, players are set in a 2D environment which they can explore by moving horizontally through it. A preceding cutscene explains the objectives and input methods to the players (see Figure 21).

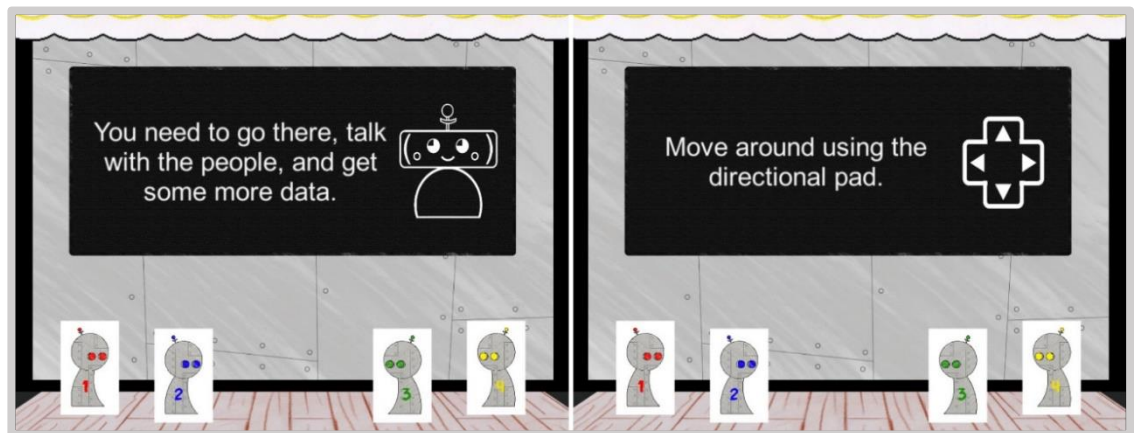


Figure 21 - Captions of “*Time Historians*”. First instructions sequence.

The virtual environment has six different areas to explore, each one filled with multiple NPCs (see Figure 22).

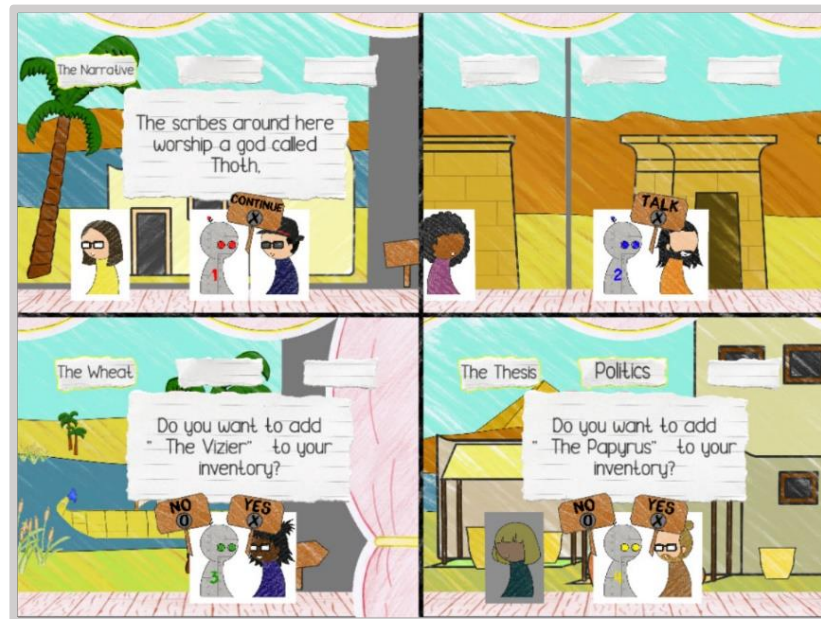


Figure 22 - Caption of “*Time Historians*”. Second act: exploration and NPCs' interactions.

Each NPC can prompt a unique line of text, that I refer to as ‘dialogues’. At the end of each dialogue players are offered a ‘noun’, a word related to the NPC’s dialogue that players can store in their inventory as data. Dialogues and nouns are related to either the historical context, historiography, or the video game prototype, as I explain later in this section. Players can only keep three nouns in their inventory, and they cannot change them once selected. Once an NPC has given its noun, it would not prompt further dialogues to any player. In other words, the nouns function as the ‘noun cards’ from other CJ games. In this act, players have a random selection of nouns that they can find and check one by one, deciding on which ones are more appealing to them. This emulates a mechanic from the fifth low-tech prototype, where cards were placed upside down and player had to grab them one at a time until finding a card they liked. When all players gather three nouns, or when a timer runs out, the act ends.

In the third act, players are tasked to fill incomplete sentences using the nouns they have collected in the previous act. Again, a preceding cutscene explains the objectives and input methods of this act to the players (see Figure 23).



Figure 23 - Captions of “*Time Historians*”. Second instructions sequence.

This act replicates the mechanics from low-tech prototype number seven. Two decks are composed with the nouns that players selected from the previous act: one with nouns and one with sentences associated to those nouns. A sentence and four nouns are randomly presented in rounds, and players select the most fitting way to fill each sentence (see Figure 24).



Figure 24 - Caption of “*Time Historians*”. Third act: Completing sentences.

The noun that receives more votes is the one that completes the sentence (see Figure 25). If there is a draw in the ballot, a new sentence and new nouns are prompted (see Figure 26). The act ends when seven sentences have been completed.



Figure 25 - Caption of “*Time Historians*”. Third act: Round end.



Figure 26 - Caption of “*Time Historians*”. Third act: Tied vote.

Finally, a fourth act presents a cutscene including some of the sentences completed by players and a text with images that gives closure to the framing narrative (see Figure 27).

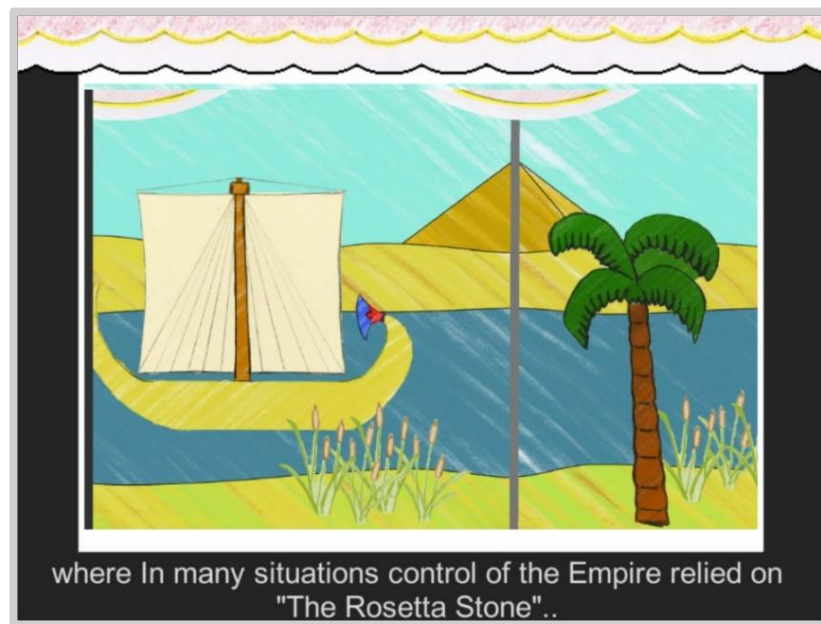


Figure 27 - Captions of “*Time Historians*”. Ending cutscene sequence.

Throughout the design process, I was experimenting with how the ideas of subjectivity, intentionality, and consensus, that CJ seems to foster, could be emphasised in order to present a deconstructionist historiographical approach. In this prototype, players’ interactions are oriented towards selecting information that they believe to be interesting, judging situations in which that information could be fitting, and voting to find an agreed answer to each situation. By providing a content and setting that references history, historiography, and academia, these affordances can be recontextualised towards a critical form of history, where players end up recreating the process of data-gathering, analysis, and deliberation. Also, while avoiding falling into skeuomorphism, I found that the inclusions of virtual environments could lead to deeper explorations of subjectivity, where players can find, inspect, and compare different historical sources.

Another element I considered was the possibility of hidden mechanics and calculations. During the design I debated between adding rules that fostered either competition or collaboration. In previous prototypes, competition was the main approach and entailed players’ enjoyment, but it did not allow room for debate. Considering changing towards collaboration, I decided to try encouraging players to cooperate during the pilots of this final prototype, but the outcome was not ideal as participants avoided thoughtful debates and instead ended up voting separately when encountering differences.

I finally sorted this by taking an ambiguous approach, where the mechanics behind the game remain hidden. During the third act of the prototype players are given contradictory information. They are informed that the outcome of the sentences is set by consensus. But at the same time, I introduced an inoperative score system, that grants points if the noun they voted for is the most popular one. The score serves no purpose, and players are advised through cutscenes, before and after the act, that it bears no meaning besides motivating players' competitiveness (see Figure 28). Although both, collaboration and competition, are manifested to the player, only collaboration is part of the code. Doing so, I was hoping to foster debates about the creation of knowledge, letting players discover themselves how the sentences were created. Moreover, the ambiguous alternative that I ended up with was meant to ensure that players themselves could decide upon the negotiation of meaning, choosing between competing or cooperating. But also, by introducing consensus as unexpected, I wanted to foster debates about the creation of knowledge, letting players discover the hidden mechanic themselves.

Finally, considering the attempts to introduce gnoseological narratives (Todorov, 1971, p. 40) in the low-tech prototypes, I decided to avoid explicitly addressing a pursuit of epistemological knowledge within the game. Players are not openly asked to reflect about the meaning of history within the game. Instead, it is their actions what can led to such reflection. Moreover, as part of the evaluation, I decided to ask participants about their thoughts on history after they played the prototype. In this way, the gnoseological narrative is indirectly introduced through the affordances and it is made fully explicit after playing. I delve more into the outcome of this decision in the analysis of the evaluation (see 7.4.b).

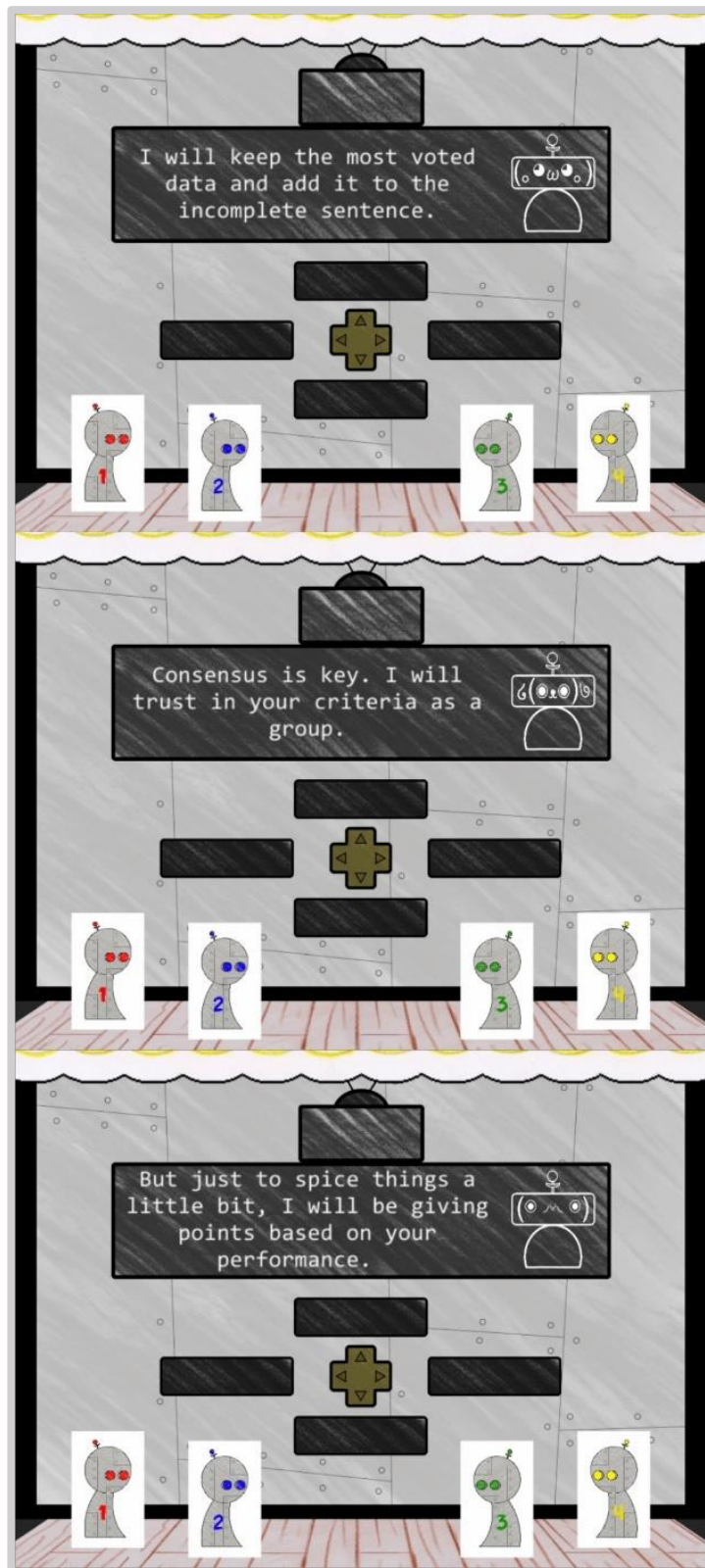


Figure 28 - Captions of “*Time Historians*”. Second instructions sequence: Voting and scoring system explanations.

6.4.b Story and Storytelling

I also introduced a framing narrative to guide players' experiences and complement the affordances. Video games' storytelling can help to contextualise and give internal logic to players' actions. I decided to add this after noticing how, in contrast with the low-tech prototypes, players testing the digital prototypes were more confused regarding the rules and objectives of the game. Attempts to present the instructions differently did not bear significant changes in this regard. From this experience I got the impression that, when playing a video game, players expected to be conducted towards the objectives through a clear framing narrative. This could be linked to either formal differences between video games and card games, or with players' perception of video games as framed stories. Regardless, I decided to include a framing narrative to expand player's engagement with the prototype. Such framing narrative also allowed to interconnect all the acts of the prototype despite their distinctive gameplay. I used it to present the gathering of data with the voting process afterwards as a cohesive process.

Additionally, I used storytelling to further embrace deconstructionist history. I decided to include a fictional story that was parodic and self-referential. It has allusions to academia, digital humanities, and video games, and it addresses players' actions as what they are intended to represent: a form of historying (see Figure 29). Parodic moments are meant to bridge from the intradiegetic level of the narrative to the extradiegetic level, referencing the player's real-life context. Likewise, self-references bridge the gap in the opposite direction, connecting the framing narrative with a ludonarrative produced through play. These are metaleptic strategies inspired by the developed diegetic framework and by other video games (see 5.4 and 6.2). Such metalepsis allows to stress the deconstructionist differentiation between 'history' and 'the past' and encourage players to critically approach the medium by creating associations between narrative levels.

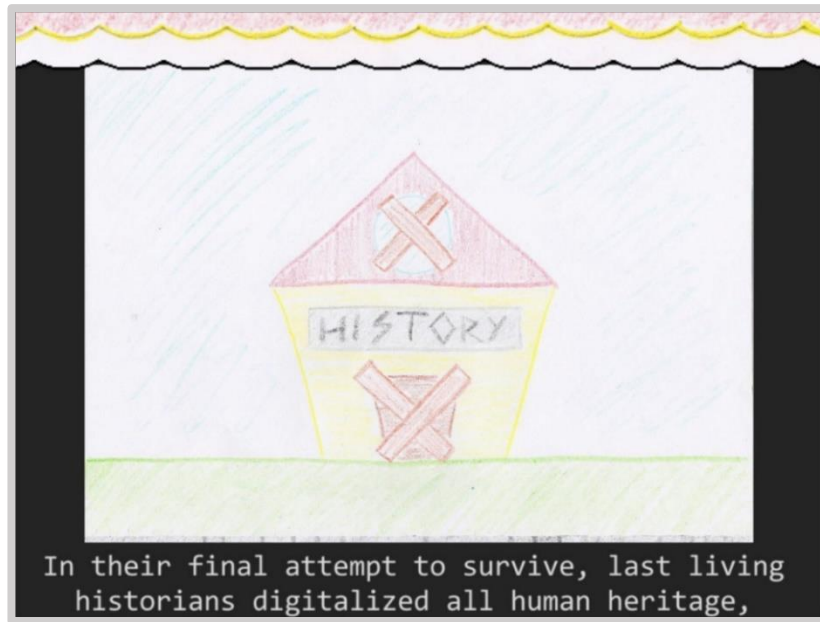


Figure 29 - Caption of "*Time Historians*". Opening cutscene sequence: Parodic reference.

A full script of the story, as it is narrated in the prototype, is included in the appendices (see 10.6.b). The story is told by a tacit narrator through cutscenes at the beginning and end of the prototype (see Figure 30).

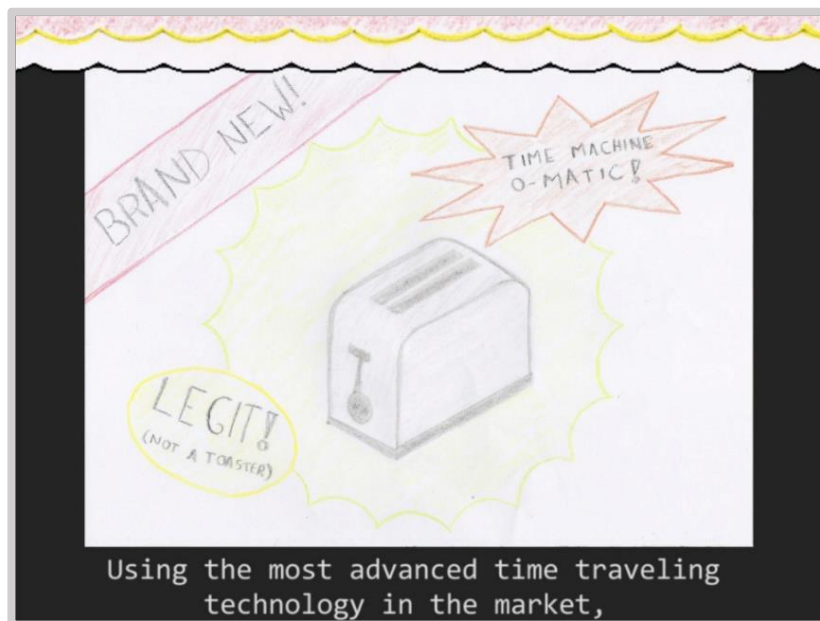


Figure 30 - Caption of "*Time Historians*". Opening cutscene sequence.

In addition to that, a fictional robotic character that acts as interlocutor between the video game scenes, also explains the objectives and instructions to the players. For the dialogues of this interlocutor I decided to add further metaleptic lines where the character escapes the framing narrative and addresses the player directly (see Figure 31). Script of these dialogues are also included in the appendices (see 10.6.c).



Figure 31 - Caption of “*Time Historians*”. Second instructions sequence: Self-referentiality.

Finally, the prototype also features NPCs that inhabit the virtual environment. Players can interact with these characters during the second act of the game. They prompt ‘dialogues’ that contain key ‘nouns’, that players can later decide to either keep as relevant data or ignore. The NPCs’ dialogues also served for parody and metalepsis, with some of them acknowledging the prototype’s story, the prototype itself, or academia (see Figure 32).



Figure 32 - Captions of “*Time Historians*”. Second act: NPCs’ self-referential dialogue example.

6.4.c Settings

Another consideration I made was to add multiple settings to the game, that address the different diegetic levels of the historical narrative. The selection of these settings was mainly a creative decision, but they hold significance in conveying a deconstructionist

approach. The first setting corresponds with the framing narrative (intradiegetic). It is set in a dystopian fictional future where players assume the role of historians tasked to re-write corrupted historical records. Such setting, presented through cutscenes with images and dialogues, is shown as futuristic and mechanical (see Figure 33). Players themselves are depicted as androids (see Figure 34). I decided to include this futuristic setting in order to create a fictional framework that separates the prototype from a serious historical video game. I also meant to represent the mythification of the future and create a parallelism with the mythification of the past.

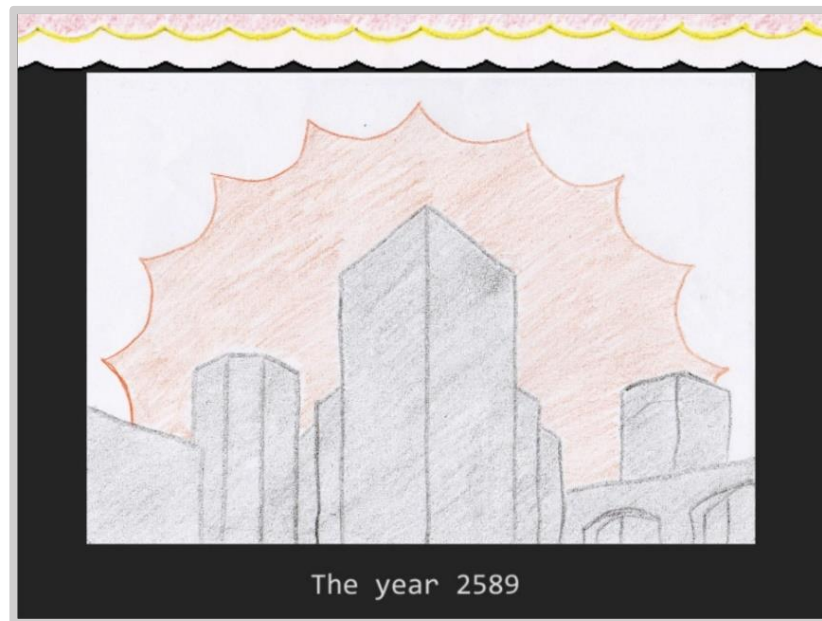


Figure 33 - Caption of “*Time Historians*”. Opening cutscene sequence: Futuristic setting.

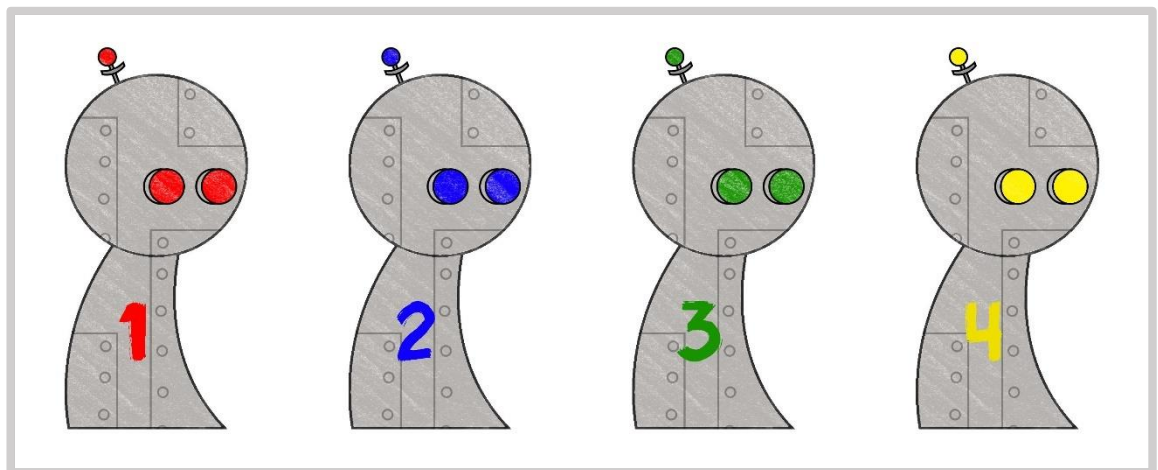


Figure 34 - “*Time Historians*” assets: Player avatars.

The second setting is one created within the framing narrative (metadiegetic). Through the story, players are endorsed to believe that they are sent back in time to ancient Egypt to gather information. I chose ancient Egypt as a popular historical context that all players

would recognise. Such setting is represented through thematic background images and NPCs' dialogues that reference this historical context (see Figure 35).



Figure 35 - Captions of "*Time Historians*". Second act: NPCs' dialogue sequence example.

At the same time, players are presented with a third setting (extradiegetic) through the video game's interface, with a theatre scenario surrounding the display frame. This is the setting of a performance or dramatisation that covers the framing narrative. Its purpose is parodic, to represent the framing narrative as a recreation and to emphasise the impossibility to objectively access the past, following a deconstructionist approach. The game menu, the scene transitions, the background, as well as certain gameplay elements like indicators of players' actions, resemble different props from theatres (see Figure 36 and appendix 10.6.d).



Figure 36 - “*Time Historians*” assets: Second act explorable areas.



Figure 37 - Captions of “*Time Historians*”. Second act: NPCs’ dialogue sequence example.

Additionally, the extradiegetic setting is addressed succinctly in some of NPCs' dialogues. For example, one of the NPCs greets the player as a fellow historian and reveals that they are being paid to play as people from the past, suggesting that the time travel is only a performance (see Figure 37).

Once again, I added these multiple levels of meaning as an attempt to subvert any idea of linearity within the framing narrative, to encourage players' critical engagement with the prototype, and to disjoint the concepts of 'history' and 'the past'. An open and inconclusive setting gives room for players' interpretation. Using these conflicting settings, I wanted to encourage players to extrapolated ideas beyond the screen, establishing further connections between what is represented as history within the game and players' conceptualisation of history.

6.4.d Historical Content

Besides the story, the prototype contains a series of 'dialogues' that players can access through interacting with NPCs. It also contains a series of 'nouns' and incomplete 'sentences' that, in the same vein of other CJ games, allow players to craft their own phrases. Each NPC's dialogue is bundled with a noun and a sentence, with a total of 26 different 'bundles' (see appendix 10.6.c). In total, 46% (12) of the sentences and nouns were related to ancient Egypt; 42% (11) were related to historiographical concepts or references; and 11% (3) were non-history related, self-referential nouns. This percentage was intended to mainly emphasise historiography. Again, aiming for a deconstructionist approach, instead of focusing on the past, I set the focus on reflecting about history as a narrative (see Figure 38).

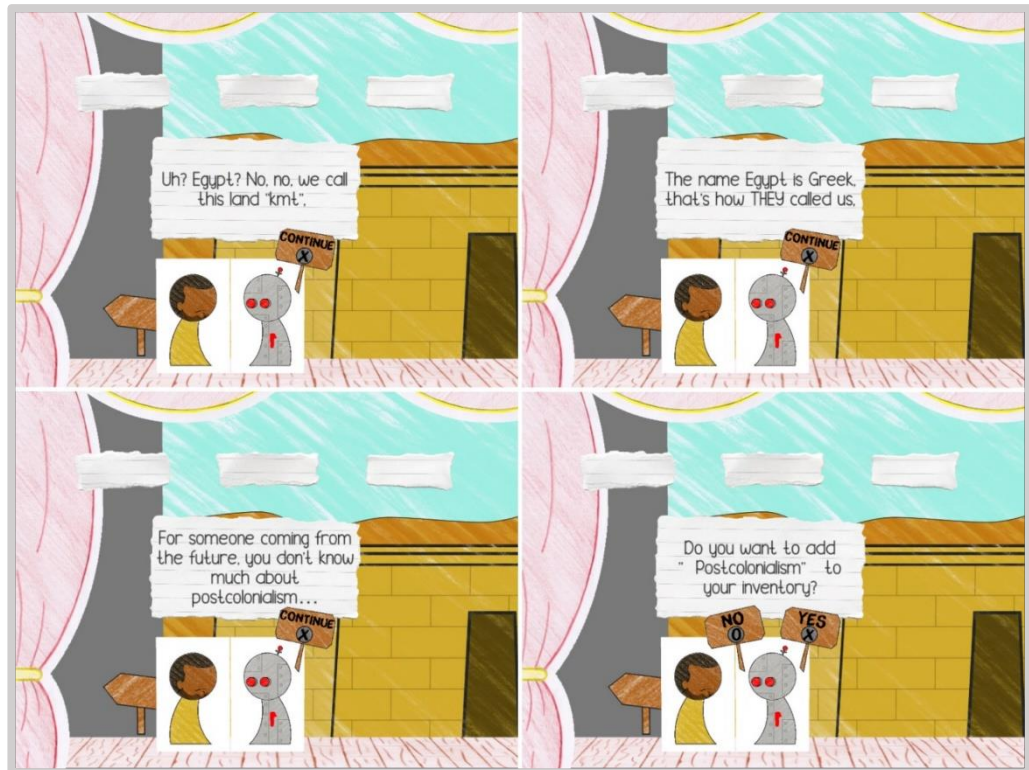


Figure 38 - Captions of “*Time Historians*”. Second act: NPCs’ dialogue sequence example.

It should be noted that sentences in CJ games require certain ambiguity and certain grammatical structures in order to allow combinations with multiple nouns. While I took inspiration from history books to create these bundles, I was not able to directly use sentences from books, so I wrote similar phrases that were adapted to the needs of the CJ format (see Figure 39).



Figure 39 - Caption of “*Time Historians*”. Third act: Outcome of a round.

Finally, there are three non-history related bundles that contain self-referential mentions to the PhD research. They include the nouns: “A thesis”, “A PhD”, and “Video games”. I added these for parody and with the intention of recognising, within the game, the authoring of the prototype and the context of its creation (see Figure 40 and Figure 41).

NOUN	The Thesis
SENTENCE	Completing _____ sure doesn't take more than 3 years...
DIALOGUE 1	Sorry I can't talk right now. I'm trying to work on my thesis, can't you see?
DIALOGUE 2	Why did I get into this?

Figure 40 - *Time Historians* assets. Example of bundle containing noun, sentence, and dialogue.

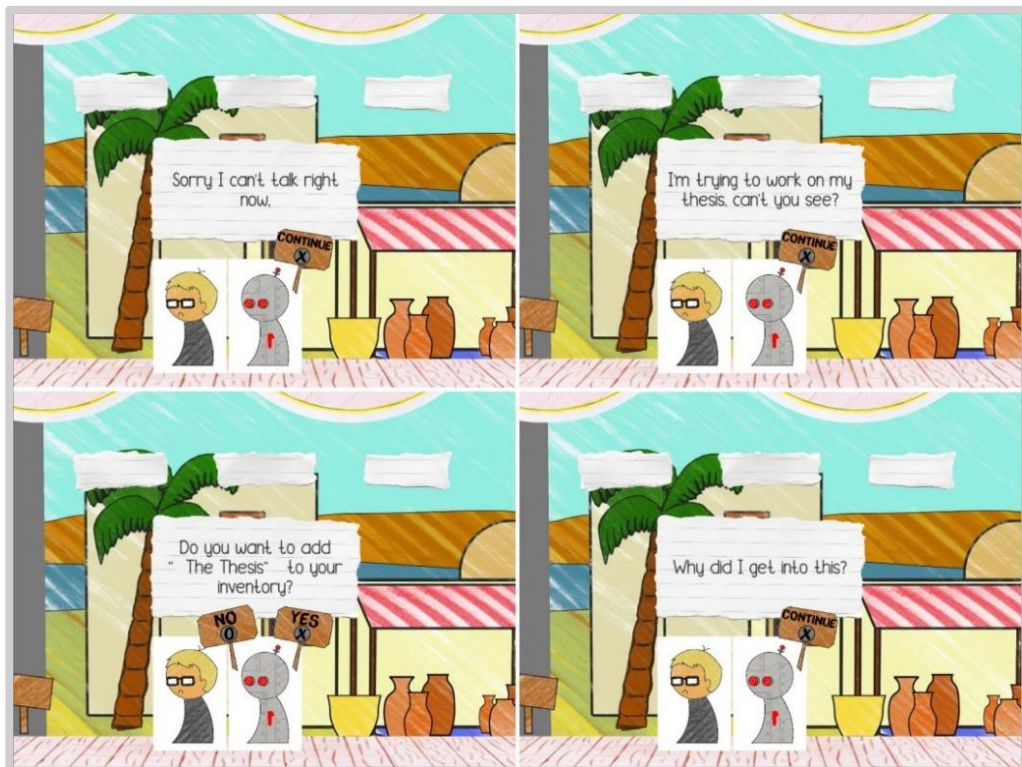


Figure 41 - Captions of “*Time Historians*”. Second act: NPCs’ dialogue sequence example.

The prototype features a randomiser during the second act that selects 21 out of 25 NPCs at the beginning of each round. This means that, like with a deck of cards, the available content is randomly selected each play session. Players encounter new dialogues, words, and sentences every time they play, encouraging re-playability. Similarly, during the third act, players are offered four random nouns, that do not have to be related with the prompted sentence. While sentences are paired with a noun in each bundle, I explicitly did not want to offer players a ‘correct’ answer to choose. Doing so would have implied

enforcing a ‘correct’ interpretation of the past, going against the deconstructionist exploration. Instead, the combinations of sentences and nouns offered in the third act is also randomised. Technically, players are still able to pick the originally intended nouns but doing so would require an almost impossible cooperation, because many sentences and words were written ambiguously and are interchangeable.

6.4.e Visual Aesthetics

Considering the human and technical limitations of the project, I was concerned with the visual style of the prototype since the beginning. I choose 2D images for practicality, as they were simpler to make and to customize. The general aesthetics of the game features hand-drawn backgrounds, characters, and interface elements, that are meant to simulate children crayon drawings. This aesthetic was suggested during informal pilots, as one that could emphasise the customisation possibilities of the video game while facilitating the elaboration of visual assets. Furthermore, this aesthetic allowed me to introduce more metalepsis, as the visual assets are presented as overlaying hand-drawn cut-outs of paper, referring to an extradiegetic, non-digital, materiality. Also, as another metaleptic attempt to reference the context around the creation of the prototype, the designs for the NPCs are not based on the historical context that players were supposed to visit, but rather they are based on real-life colleagues and researchers that have been influential for me during this project (see Figure 42).

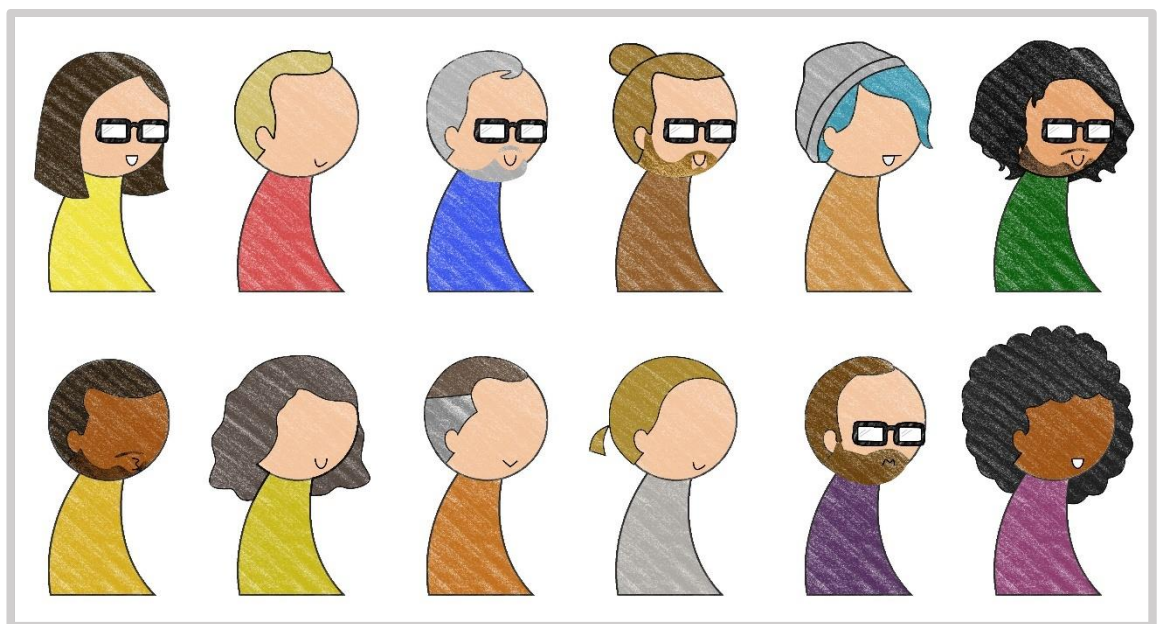


Figure 42 - “*Time Historians*” assets: Examples of NPCs’ appearance.

Finally, I should mention that this aesthetic choice inspired the inclusion of other mentioned elements. For example, the idea of introducing an extradiegetic setting with the theatre frame came from surveying another video game with a similar hand-drawing cut-out style: *Paper Mario: The Thousand-Year Door* (Intelligent Systems, 2004) (see Figure 43). Coincidentally, this setting also simplified and justified the transitions between the acts of the prototype and inspired the story.



Figure 43 - Caption of “Paper Mario: The Thousand-Year Door”.

Due to time constraints, only animations that had an impact on the game experience were added to the prototype. These included player animations for voting and interacting with NPCs, animations for displaying text, and animations for displaying the outcome of the players’ voting. Animations for the cutscenes and the main menu were also implemented to strengthen the story and give the prototype the appearance of a commercial product (see Figure 44). As mentioned before in this chapter (see 6.2), I intended to frame the prototype as a commercial video game for the evaluation, in order to subvert predispositions about educational video games and to emphasise a ludic frame that could favour deconstructionist history.

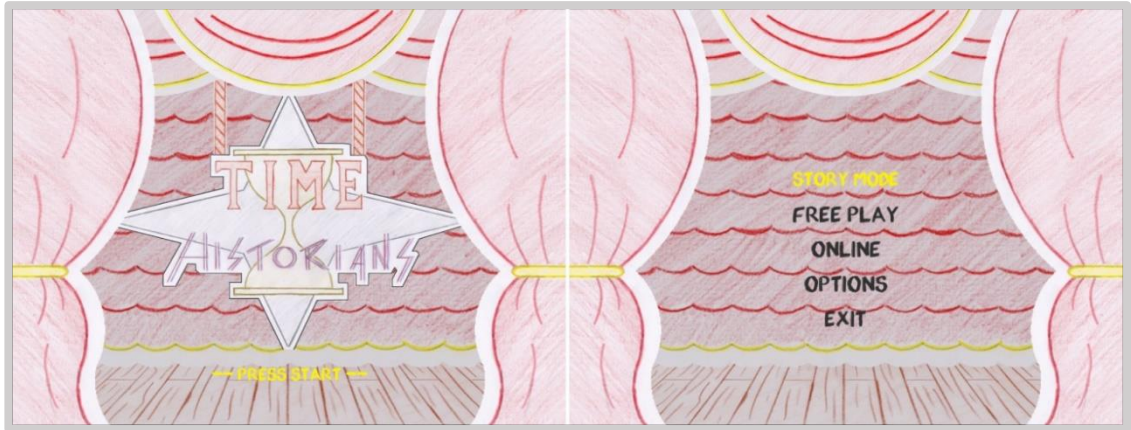


Figure 44 - Captions of “*Time Historians*”. Title screen and main menu.

6.4.f Customisation

As discussed before (see 6.2), I wanted to add customisation to foster players’ engagement with the historical narrative and question the linearity and authoring of the experience, in the vein of deconstructionist history. I designed several elements to be customizable, like the player avatars, the backgrounds, the dialogues, sentences, and nouns. The original concept of *Time Historians* implied that players could explore, not only one, but several historical contexts. In this sense, ancient Egypt was just a placeholder setting prepared for the evaluation. I wanted players to be able to introduce the contexts themselves, by drawing the backgrounds and writing the dialogues, sentences, and nouns to play with.

These customisation features heavily influenced the design of the prototype. For example, the visual aesthetics were meant to facilitate and encourage players to draw their own background and characters, maintaining a cohesive motif of a hand-drawn environment. Moreover, I had customisation in mind when coding the game. I implemented values like dialogues, nouns, and sentences in a way that they could be modified externally without touching the prototype’s code or the game engine interface. However, none of these customisation features were completed due time constraints.

As with customisation, other aspects were not implemented in the prototype at the moment of its evaluation, mainly due time constraints. Music is absent from the prototype, except for a selection of sound effects that indicate players’ inputs and act transitions. I also planned having multiple game modes that allowed different arrangement of players, but I was not able to implement them. Although these aspects are

not included in the scope of the thesis, the prototype is left open for their future implementation.

6.5 Chapter Summary

In this chapter, I have detailed and analysed the design process of *Time Historians*, a historical video game prototype inspired by, and that aimed to explore, a deconstructionist historiographical approach. My goal was to prompt further insights about the medium and how it can be used to explore history and historiography.

First (6.2), I reasoned my initial aim towards including concrete aspects in the prototype, such as: affordances meaningfully connected with history, multiple choices through narrative structures, customisation options, self-reflexivity and uncertainty from metagames, ephemerality and performativity, a remarked ludic frame, and a recognisable intentionality. These aspects came from the literature about historical video games and deconstruction (see 2.3.c) and from the workshop's outcome (see 5.4). I proposed using strategies like metalepsis to subvert the tensions that historical video games entail and to encourage critical reflection. I proposed examples from metagames and non-historical deconstructionist video games to serve as inspiration for this.

Next (6.3), I described and analysed the early designs. I argued that there is no privileged approach for exploring deconstructionist history in historical video games, as any genre can be subverted towards conveying a wide range of approaches. I stated my decision to explore deconstructionist history through the genre of CJ games, games where the content and the validity of players' input depend on their own creative judgement. I argued that this genre presented affordances that allowed to work with the concepts of subjectivity, interpretation, and consensus. I experimented with this genre through low-tech prototypes and found it useful for critically engaging with history, by directly embracing a form of historying and potentially incentivising debates among players. I also stated the difficulties of engaging with the medium of video games when attempting to create early digital prototypes, and showed how unique aspects of the medium, like its spatiality and multimodality, heavily influenced the design process.

Finally, in the last section (6.4), I presented the final historical video game prototype, named *Time Historians*, and the core aspects that I implemented to examine and convey a deconstructionist historiographical approach. The mechanics borrowed from CJ games

were tied to the historical theme and allowed for a direct engagement with history. I also introduced further narrative elements aiming to support the deconstructionist approach. For the story, as well as for the settings and the visual aesthetics, I actively applied metaleptic strategies that aimed to subvert the tensions between diegetic levels (theorised in chapter 5.4). By doing so, I proposed a disruption of the narrative similar to that of deconstructionist history.

After analysing this design process and describing the prototype produced through it, in the next chapter I analyse how people engaged with it.

Chapter 7. Evaluating *Time Historians*

7.1 Chapter Overview

In the previous chapter, I described and analysed the design process of *Time Historians*, a historical video game prototype designed for this research, arguing how it was informed by, and aimed to explore, a deconstructionist historiographical approach. In this chapter, I analyse how participants of play sessions arranged for this project engaged with *Time Historians*, and what they said about its historical narrative and historiographical approach. During these play sessions, university students and lecturers got to play with the prototype, give their feedback, and discuss about it. By looking at their responses, I aim to delimit the scope and reach of historical video games for exploring a deconstructionist historiographical approach.

To do so, in the following pages I focus on: examining participants' engagement with the prototype and their general feedback about it (7.2); analysing their debates and discussions around the prototypes' historical narrative, paying attention to the historiographical debates that emerged from it (7.3); and assessing how specific aspects of the prototype encouraged participants to engage with deconstructionist history, giving suggestions for further iterations (7.4).

7.2 Reception and Evaluation

I programmed three evaluation sessions in order to review the historical video game prototype designed for this project, *Time Historians*. These evaluations consisted of a play session of the prototype followed by a focus group discussion, accompanied by pre- and post-play individual surveys (see 3.4.c and 10.7). I targeted specific aspects of the prototype, such as the visual aesthetics or the story, that were emphasised during the design process, in order to discuss their application and relevance. But mainly, I set up the evaluation to analyse what kind of discussions about history and historiography the prototype will prompt in participants. The participants were university students and lecturers from diverse backgrounds (see 3.4.c and 10.8.a). However, they shared common patterns when asked about their previous knowledge and motivations in the pre-play survey. The Likert-scale type questions that I included to map their background, showed

similar responses (see appendix 10.8.c). For example, 10 out of 13 participants declared having above average knowledge about history and video games. Participants were more cautious when asked about their knowledge of historiography, although 9 out of 13 participants declared having average or above knowledge (see Figure 45). Likely, 9 out of 13 participants declared joining the evaluation session because of their general interest in both, history and video games.

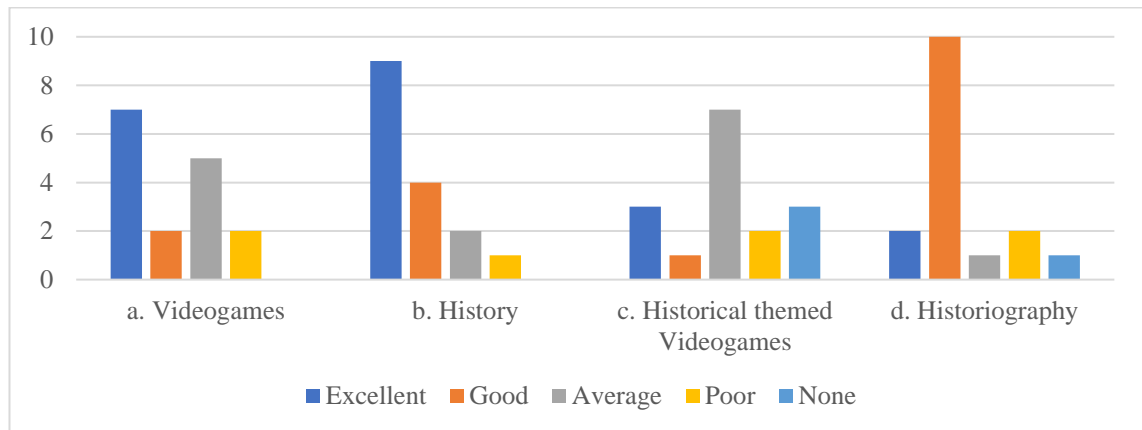


Figure 45 - Evaluation 'Pre-play survey' answers. Participants' background knowledge.

Moreover, the evaluation participants also shared similarities with the design workshops participants, in terms of their perception and concerns about historical video games. During a spontaneous discussion held before the evaluation, they showed concerns about historical accuracy in historical video games, stereotyped representations, the possibility to explore multiple perspectives, and the intentionality behind some depictions. Similarly, they spoke favourably regarding video games' reverberation in people's conceptualisation of history, particularly in how students engage with history through this medium. But they also questioned its limitations, in terms of how it is more aimed towards entertainment, how predominant military history is, and how that limits the available interactions to forms of violence. All these mentioned topics coincide with the ones discussed by the design workshops participants (see 4.4), which allows to deduce similarities between both groups in terms of how they perceive historical video games.

I also want to address some issues with the evaluation sessions that might have hindered participants' engagement. First, minor grammar mistakes with the in-game text as well as unintended programming errors, fixed in later versions of the prototype, were noticed during the play session. Secondly, while the prototype included animated scenes explaining the objectives and controls, participants still struggled to identify these during

the play session. I purposely handed participants a paper sheet with printed instructions and objectives, but it was not mandatory to read it. Additionally, I noticed that participants were usually distracted during the explanatory cutscenes. Other participants struggled with the controls and the interface, and had difficulties identifying their avatars and their actions. Furthermore, during the play session, participants asked each other about the objectives of the video game, trying to understand the goals, despite this being explicit in both the cutscenes and the instruction sheet. As I discuss later in this chapter (see 7.4.b), there was an intentional ambiguity regarding some of the video game's objectives. But even considering that, these events point towards issues with the prototype's design and with the evaluation's set-up not being able to hold participants' attention in crucial moments and share key information beforehand. I have taken these issues into consideration for the analysis, and I have used this feedback to iterate on the prototype.

Regardless, participants' engagement with the prototype was generally positive. Participants' reactions to the game showed genuine interest. The satirical references in the cutscenes and NPCs' dialogues were received with laughs and positive commentaries, showing that they successfully conveyed the humorous tone of the game. Similarly, participants actively engaged with the different parts of the prototype, especially during the third act, where they had to compose phrases. Participants laughed at certain combinations, claimed the adequacy of certain choices, or expressed doubts about their actions. When the outcome of their consensus turned out to be unexpected, some participants manifested surprise, especially when they were not aware of the voting system behind it. I observed these reactions in two of the three evaluations groups. Coincidentally, the group that did not showed these reactions and had a more serious tone, was the one that experienced programming errors, so it is likely this had a negative effect on their perception since the beginning.

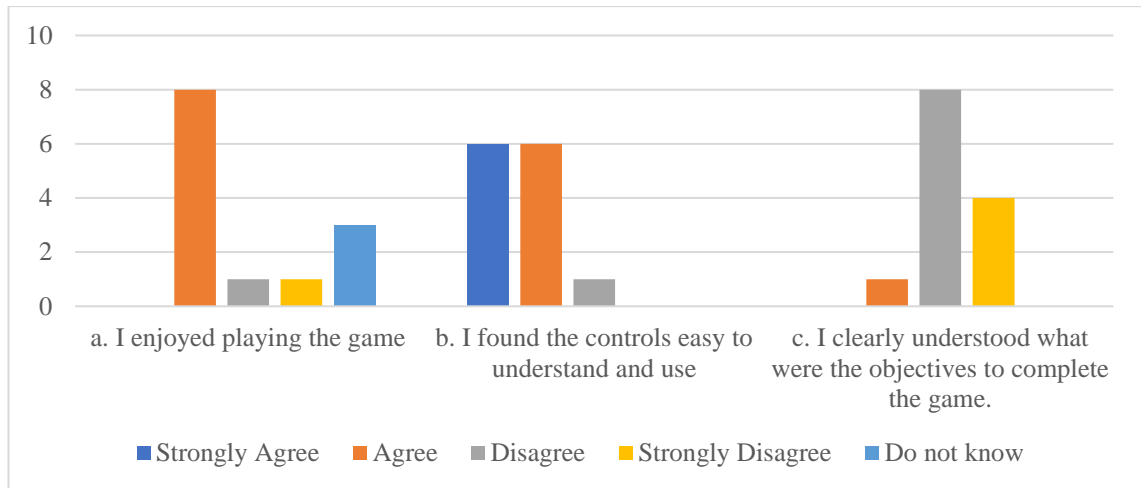


Figure 46 - Evaluation ‘post-play survey’ answers. General.

The surveys at the end of the evaluation session provided more feedback on the prototype (see appendix 10.8.d). Part of the survey consisted of Likert scale type questions targeting concrete aspects (see Figure 46). For example, most participants, 8 out of 13, claimed to have enjoyed playing the prototype (question a). Regarding the control scheme, 12 out of 13 participants found the controls easy to learn and use (question b), which implies that this was not an issue for the evaluation. On the other hand, 12 out of 13 participants had difficulties understanding the objectives of the game (question c), confirming my observations regarding their engagement. I discern this was due to the presentation of the prototype’s instructions. Part of this was intentionally left ambiguous, as I explain later in this chapter (see 7.4.b).

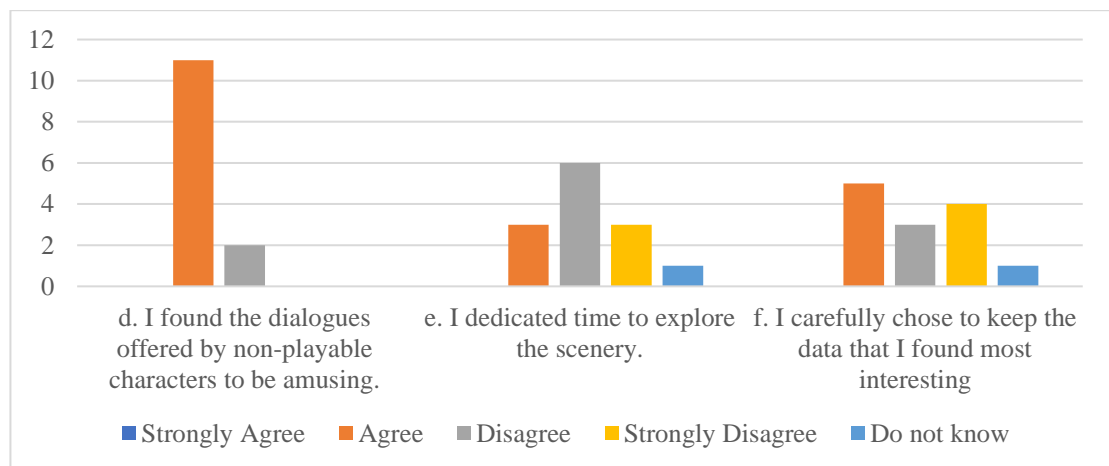


Figure 47 - Evaluation ‘post-play survey’ answers. Prototype section 1.

Aiming to gather specific feedback, the surveys focused on features from the two main playable sections of the video game. For the first section, the “exploration stage” where players had to explore a historical environment and gather information from NPCs, the

questions were aimed at how participants engaged with the environment and dialogues (see Figure 47). A majority, 11 out of 13, found the dialogues to be entertaining (question d), however only 5 out of 13 participants declared carefully choosing the data based on their own criteria (question f), showing that there was either indifference towards the dialogues or more likely confusion regarding the purpose of selecting this data. Similarly, only 3 participants out of 13 stated to have dedicated time exploring the different areas available in this part of the prototype (question e). As describe in the previous chapter (see 6.4.a), the virtual environment included in the prototype had six distinguishable areas with different NPCs. While this inclusion of a virtual environment was a major challenge during the design, it appears the prototype did not encourage for such exploration as it was desired. I tackle this aspect later in this chapter (see 7.4.d).

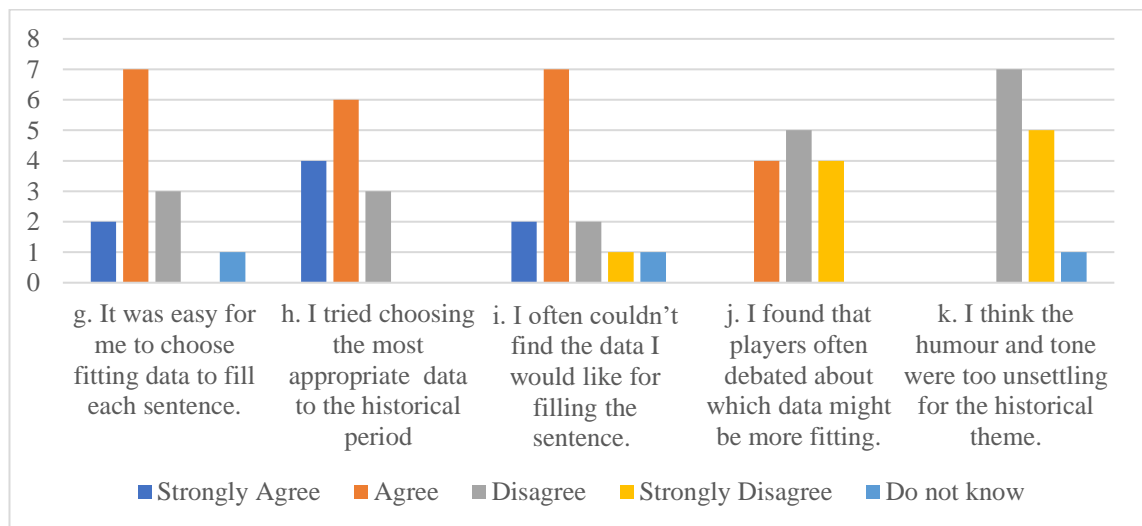


Figure 48 - Evaluation 'post-play survey' answers. Prototype section 2.

For the second section of the prototype, the “completion stage” where players had to complete sentences by voting for nouns that better fit each instance, the questions were mainly aimed at how they engaged with consensus (see Figure 48). To begin with, 9 out of 13 survey results confirmed that participants did not debate about how to fill the sentences (question j). Only in the second evaluation group I observed some interactions between participants while playing, but these were directed towards competition and not towards collaboration. Once more, this might have to do with the confusion regarding objectives. During the focus group discussions, several participants expressed awareness of the voting mechanic and the need for consensus (see 7.3), but they did not rely on negotiating with their peers while playing.

Most participants, 10 out of 13, declared choosing the nouns that they felt were most appropriate for the historical period (question h). But although 9 out of 13 participants declared it was easy for them to select a fitting noun (question g), 9 out of 13 also declared having difficulties finding the data they wanted (question i). This result is rather contradictory, but it could be showing that, while the range of sentences and words did allow them to easily find combinations of nouns and sentences, there was a strong concern over creating historically accurate sentences that the range of nouns did not allow.

Finally, Despite the humorous tone of the prototype, almost all participants, 12 out of 13, agreed that such elements were compatible with the historical theme. This was a major concern going into the evaluation, considering how the visual style and the fictional story might clash with a serious subject like history. While this was not perceived as a problem when engaging with history, it should be noted that this tension between history and fiction was brought up during the focus groups, as I discuss in the next section of this chapter.

Beyond these closed-ended questions, participants of the evaluation also were given space in the survey to freely write their feedback about the prototype. I first asked them about the prototype's approach to history, and then about anything they wanted to add. Some participants used this space to share positive appreciations about the prototype:

Survey 3(2): I think the game was engaging and fun to play. I found myself giving consideration to the answer I would give. I thought the design was cute and whimsical.

Survey 3(3): Friendly – a bit like animal crossing!

When referring the prototype's approach to history, they highlighted aspects like consensus and interpretation:

Survey 1(2): The suggestion that history is determined by what sounds correct and popular consensus.

Survey 2(1): It was an interesting choice to place an emphasis on interpretations of the past rather than just the past.

Survey 5(2): I like the way the game look for agreement of historical fact – a construction of the past.

Survey 3(1): It was a good exercise in how 'knowledge' is formed/constructed against historical accuracy.

Participants also manifested their confusion regarding the objectives, and related it to how the prototype engages with history:

Survey 4(1): I think it could have been more clear about whether you were trying to get the right answer or pick the same answer as everyone else. Type of history it wanted to be was not clear.

Survey 1(3): It was confusing. It was not clear in the first part the objective of data. And it was ambiguous. The second part was difficult to discern what the point criteria was.

The lack of multiple contexts to explore and the need for encouraging more debates was also brought up:

Survey 4(2): It had good engagement. with history, but only one period.

Survey 1(3): Also, it would have been beneficial to players know they can debate

Survey 1(1): Attempting to address issues of misconceptions and/or historical disagreements. We did not, as a group, discuss our sentences responses – perhaps time could be put in to add this to the format?

When asked for further feedback, most participants, 9 out of 13, mentioned the need of clarifying either the objectives or instructions. For example:

Survey 1(1): Perhaps the objective/forms of consensus could be made more explicitly.

Survey 3(2): Do clearer instructions with the second part.

Survey 1(2): (...) What was the ideal outcome? Wasn't clear what the objectives were in the first part.

Survey 5(2): It would be good to have a cleaner explanation of part 1 of the game and part 2 of the game so we knew the objectives.

Survey 1(3): The set up could use more structure + more guidance to player.

Survey 2(3): Objective need to be more clear.

Survey 4(3): I feel this needed objectives and challenge.

Finally, some participants also asked for further inclusions in the prototype, such as sound and music, longer play-time, or more historical contexts to explore:

Survey 4(2): The game needs to have a voiceover on the main descriptions to make it more accessible. Music while you collected the data would also be good

Survey 2(1): It could have been longer, more varied + challenging

Survey 3(3): More unusual facts

Overall, participants' engagement with the activity and the prototype was positive and provided the desired feedback, which I further analyse in the next sections.

7.3 Historical Narrative and Historiographical Approach

After playing the prototype, I organised semi-structured focus groups where participants discussed their impressions. In this section I analyse participants' discussions, aiming to identify the outcomes of the prototype. To encourage participants to debate, I asked them about how they thought the prototype engaged with history; what problems they found when completing the sentences; and what can the prototype teach about history. These questions are further reasoned in the methodology (see 3.4.c).

My aim was to identify ideas about history and historiography that participants related to the prototype. All groups engaged in such debates. Participants in groups 1 and 2 were more eloquent about these topics, namely because of their backgrounds (see 3.4.c and 10.8.a). But even in group 3, where half of the participants did not have a background in history, there were multiple historiographical concepts being confronted. Overall, participants' previous ideas about history resonated in how they approached and analysed the prototype. The focus group allowed to confront such ideas and bring higher-level discussions. Thanks to this, I observed that the prototype does favour a deconstructionist approach, by introducing certain concepts like subjectivity and interpretation to players' conceptualisation of history. In this sense, the prototype was a success, as it encouraged deconstructionist ideas and managed to prompt historiographical debates.

Participant's confusion regarding the prototype's objectives was generally the trigger for their debates. The objectives of the game were stated through cutscenes and in a paper sheet handed to the participants. However, many participants declared not being sure about the goals, stating that there were ambiguities and hidden objectives. For example, PD3 stated:

PD3: Honestly, I did not know what the objective was, and when I was clicking through and selecting things I was not sure why I was there (be)cause I did not know what was going to happen next (...) was there supposed to be any consequences for selecting the wrong stuff?

This was a major criticism, seen also in the survey's feedback (see 7.2). However, this ambiguity was, to some extent, intentional. As described in the previous chapter (see 6.4.a), for the second part of the prototype, the "completion stage" where participants had to vote for completing sentences, I debated between enforcing competition or collaboration, and opted for including a symbolic scoring system, that bore no purpose beyond opening players' interpretations and possibilities. In other words, I aimed to let players decide on how knowledge was to be negotiated, and whether they wanted to compete or cooperate. This strategy was perceived as a flaw by participants. For example:

PA3: There were so many different ambiguous factors that, if the whole point was to see if we either figured out that it was about consensus or (...) was it about the two people who click the quickest versus the two people that took longer, or vice versa. But there are so much other ambiguities around everything else.

Particularly in the second part of the prototype, some participants that were not aware of the voting mechanics, or discovered it while playing, mentioned their initial aim for identifying 'correct' options.

PD1: I did not pick up on that to begin with-

PC1: I did not pick up on that either

PA1: I was just trying to get it right [Laughs]

PD1: Yeah, I thought 'I will get it right'.

However, once participants were aware of the voting mechanics, they discussed this tension between competition and collaboration, and whether they chose based on their interpretation or on what others might pick:

PB1: I was trying to get it right, and I think that is an important thing to us, an important distinction, is not it? (...) I did realise that it was about what we voted for, but I also voted to get it right, so there is a tension between the two kind of approaches to history.

PD1: Do you go for the common misconception that everyone will put, or do you go for the one you know is right but not get an extra point.

PB1: And not agree with you colleagues, which is, you know, which is what is going to put you in this weird awkward position.

This ambiguity also allowed to bring forward the notions of subjectivity and interpretation, particularly when discussing which options to choose. For example:

PA1: There were some I thought (...) there could have been-

PD1: More than one?

PA1: Yeah

PC1: Yeah

PA1: Like the one about: 'historians have focused on...'. And the answer was language, but it could also have been like historic study on the Nile, (...) could have been several answers (...).

PD1: And the pyramid and the wheat, where it was the economic conditions? where you know-

PC1: Yeah, I thought (it was) the wheat, yeah-

PD1: Yeah, I was going to put that, but I do not know.

In the second group, participants identified this mechanic while playing and they questioned each other's selections as they were choosing:

PD2: Who the hell is player one?

PE2: Me

PD2: Why did not you put 'written sources'?

PE2: I did!

PC2: I did not, I put 'Pyramid'

PD2: Ah, so you all won?

In this regard, the ambiguity between competition and collaboration had the intended results. It encouraged participants' debates, both in terms of discussing their actions and in terms of discussing history and historiography. Noticeably, some participants explicitly brought the idea of history as a construction. In group 2, when asked about the prototypes' historical approach, participant PC2 directly stated that the prototype showed that "History is built by consensus", and PB2 added: "That there is a process as well, that you have to actually learn, inquire about things, and find things out". In group 1, when participants learned about the voting mechanic, they debated about how this captures academic history.

PB1: Kind of how knowledge works.

PA1: But does that mean (...) saying an answer is right even if it is historically inaccurate? (...) so, it is not about us revealing historical facts, it is about us making sentences-

PB1: It is about asking the consensus between us to create a consensually agreed (response).

PD1: Yes.

PA1: Ah, ok.

PC1: Yeah, it was about creating historical facts, was not it? if we all as historians agree, then it is true.

PB1: Constructivist knowledge.

I contend that the ideas participants exposed resonate with a deconstructionist historiographical approach. They emphasise history as a constructed narrative and hints at the idea of social discourses hidden behind this process.

Moreover, to expand on these ideas, I asked participants about the prototype's teaching value. While I purposely tried to avoid framing the prototype as educational (see 6.2), I also wanted to benefit from the participants' background as lecturers and PGCE students to encourage further discussions. In this regard, some participants made a distinction between, "substantive" and "disciplinary" knowledge, pointing at how the prototype provided both aspects:

PC2: Are we talking about history, like, specific facts about history? or the way in which-

PD2: Substantive or disciplinary

PC2: Like... history is constructed-

PD2: You learn substantive content; you learn things about Ancient Egypt, right?

PA2: I think you have it both, is not it?

PE2: (...) Yes.

The participants' definition of substantive and disciplinary knowledge corresponds with curricular terms for the teaching of history (Counsell, 2018), that differentiates between teaching content related to the past and teaching how to approach or reach such content about the past. In this regard, the prototype's engagement with substantive knowledge was generally agreed, although some participants also stated not paying attention to the

texts and focusing on gathering data rather than reading it. PD2 referred to the target public of the prototype, arguing that a different age group might be more suitable for either substantive or disciplinary knowledge, and explicitly talking about engaging with historical interpretations: “I suppose it depends (...) if it is aimed at like six-year olds, obviously you are just going to look at... but maybe if it is for slightly older children you will start maybe looking at interpretations.” Similarly, PB3 claimed for the importance of learning disciplinary knowledge over substantive knowledge, by developing critical thinking, being sceptical, and understanding that history “is just interpretations”.

PB3: (...) If you really want kids to learn about history, it is about getting them engaged in that deeper process, higher order sort of thinking, and developing their critical thinking skills, and all that (...). Anybody can learn facts and data off your flash cards, but to get kids to actually be sceptical about what they are reading and to get kids to be able to write a good analytical piece about history, to get kids understand that history is just interpretations a lot of the times and that they are definitely open to discussion at all times (...) (that) is the hard part in history...

While noticing the disciplinary approach, participants PB1 and PC1 were concerned with the outcome of players’ consensus as creating false substantive knowledge and perpetuating misconceptions. In this regard, a few participants assumed that some of the sentences they created were historical facts. As I tackle later in this chapter (see 7.4.b), this situation of misinformation is problematic. But participant’s comments about it also guided me to consider certain notions about history, knowledge, and objectivity, that might be predominant in their interpretation of the prototype.

For example, several participants expressed their concerns with picking ‘right’ or ‘wrong’ choices, even after knowing about the voting mechanics of the prototype. In their feedback of the prototype, participants PA2, PD2 and PD3 insisted on further allowing or encouraging players to pick the ‘right’ choices. I purposely avoided this possibility (see 6.4.d) to convey the idea of a history without a privileged interpretation of the past. This deconstructionist argument does not mean a denial of historical facts, but rather encourages to uncover the veil of objectivity that surrounds our engagement with facts. In words of Edward Hallett Carr (1961, p. 22): “the facts of history never come to us ‘pure’ since they do not and cannot exist in a pure form: they are always refracted through the mind of the recorder”. However, this deliberate design choice was seen by many participants as problematic, suggesting that their participation was not about making history but about “making nonsense sentences” or making something that “sounds right”.

Moreover, there were also concerns about the historical content being overshadowed by the gameplay, as participant PA3 manifested: “it was more about just getting to the point of capturing the data versus actually reading”.

I contend that, beneath these concerns about the need for accuracy, the mix of fiction and reality, and the overshadowing of content, there is a preconception about what historical video games must entail and what they should particularly aim for or prioritize. The concept of ‘the limits of play’ (Chapman and Linderoth, 2015, p. 13), discussed in the literature review as what is seen as socially acceptable to be included in historical games, could be applied here. The limits of play might not refer only to events, characters, and topics whose representation is problematic; but also, to notions about history and historiographical approaches that are not as broadly accepted or recognised. In this sense, I noticed that participants contextualised and read the prototype through the lens of public history, relying on popular culture to draw connections with the prototype’s historical references. For example, when PB1 encountered the word ‘Vizier’ and asked for definitions, PA1 responded: “Is the bad guy in the *Prince of Persia* games” and PB2 added “And in *Aladdin*”. In this way, the prototype was also being judged within the wider conceptualisation of public history.

Considering this, in-game actions, like completing sentences or collecting nouns, could be detached from any historical implication in order to evade certain notions and representations of history that may not be in line with generally accepted ideas. For example, an explicit portrayal of history as writing a narrative or discussing interpretations could be ignored as a representation of history altogether. When considering the negotiation of meaning in historical video games, even at an epistemological level (or perhaps especially at this level), the lens of public history has a powerful role.

Overall, the prototype successfully motivated productive debates around history, although with some criticism that I address in the next section.

7.4 Deconstructionist Historical Video Games

In the literature review, I referred to the idea of negotiated meaning and the need to address historical narratives in video games as a negotiation between, medium, developers, and players (see 2.4.c). I suggested that this approach was needed in order to

explore concrete historiographical approaches. The prototype designed for this research, *Time Historians*, is aimed to conveying and exploring a deconstructionist historiographical approach, and while the creation of the video game's meaning ultimately rests on players' interpretations, my intention with this prototype was to encourage players towards certain ideas and debates. When considering participants' feedback, I argue that *Time Historians* manages to engage with deconstructionist history. Not only because it attempts to convey, by the means of its mechanics, aesthetic, and story, the idea of history as a narrative that we create. But also, because it encouraged participants to question their understanding of the topic, guiding them towards addressing a postmodern approach to history. As I showed in the previous section (see 7.3), several participants mentioned that the prototype presented history as a construction or as consensus. This resonates with the ontological claim of the deconstructionist approach that understands history as a narrative that we create and focuses on scrutinizing the process of writing history (Munslow, 1997, p. 18; 2006, p. 80). Furthermore, this also indicates that the overall epistemological claim was successfully conveyed and shared.

However, there are aspects that require further analysis, either because they did not behave as expected or their application requires further thought. As the conclusions for this research include more than only the evaluation of the prototype, I decided to tackle these aspects in this section, including observations for further iterations of the prototype.

7.4.a Managing Affordances

My first objective with the design was to identify affordances that could be linked meaningfully with a deconstructionists approach. CJ games offered a range of actions that were useful to work around the concepts of subjectivity, interpretation, and consensus. However, when it comes to connecting these mechanics with history to create meaningful affordances, some aspects were overlooked. For example, participants PA3 and PD3 criticised that “it did not seem like people were actually reading the texts”. Similarly, participants referred to the video game's affordances in generic ways that do not relate to history. They distinguished between the first part of the game, where they had to ‘find stuff’, ‘get information’, ‘collect words’; from the second part of the game where they had to ‘determine right or wrong information’, ‘make sentences’, ‘fill gaps’:

PA2: I think you have to go around getting information and then afterwards... everyone determine what information is right or wrong.

Despite this disconnection between their actions and the historical theme, participants did reach a point of reflection after learning about the voting mechanic of the prototype. This mechanic was detailed in the prototype's cut-scenes, informing participants that during the second part of the game the sentences were completed following the players' votes. However, not all participants understood this aspect of the prototype from the beginning. Some of them found out about it while playing, showing a progressive change in their perception of the prototype.

For example, in group 2, when voting for their second sentence, participants commented the options:

PB2: The wheat

PC2: The wheat

PA2: Clearly, it is a crocodile

PC2: It is a massive wheat [Laughs]. Everyone is chewing it.

Then, the results were revealed, showing that 'The wheat' won, and they reacted:

PB2: It is the wheat!

PA2: Wait, what?

PC2: Hah...

Later on, around the fourth sentence, participants recognized and discussed the voting mechanic.

PE2: How are you getting it only right?

PD2: It is not what is right, it is... I think it is just what we have chosen as the most-

PC2: As the consensus... yeah...

PD2: Consensus, thank you.

PA2: Oh, right...

PB2: Ah!

PA2: So, it is not like, it is not a quiz, it is like... you are just determining what predictable answers... as long as all come up to a certain answer

PD2: Then that becomes the new truth, basically... yeah...

Other participants, for example in group 1, identified the voting mechanic only after the play session was over, during the focus groups:

Researcher: I do not know if you picked this up, but there is no necessarily a right answer for each sentence, it depends on how many people vote for a specific-

PD1: Oh, really?

PB1: So, if we all voted for something stupid, like, if we all voted for... a PhD... it would still have passed?

Researcher: It would have passed, yes.

PD1: Oh, really?!

PC1: So, it is just to do with the number of people voting for the answer that might be answered correct?

Researcher: Yes.

PD1: That is interesting...

In both cases, identifying this mechanic is what created room for critical engagement, as it disrupted their expected experience of the prototype as a trivia game and introduced new considerations when relating the mechanics with history. Realising that they voted for the correct answers gave them an unexpected role: they no longer had to identify what is 'correct' but to decide themselves on the validity of knowledge. Such position pushed them towards making new associations about history, as argued in the previous section.

Overall, the prototype did manage to offer meaningful affordances that enticed deconstructionist ideas. The reliance on CJ games proved to be useful for the exploration of subjectivity, interpretation, and, particularly, consensus, and this approach was beneficial for the aim of this project.

7.4.b Managing Ambiguity and Debate

As mentioned throughout this chapter, participants struggled with the ambiguity of the objectives and instructions. Part of this ambiguity was intentional, particularly during the second part, the completion stage. As explained in the previous chapter (see 6.4.a), the prototype included a scoring system when voting for completing the sentences, but participants were informed that such competition had no meaning. Its purpose was to evaluate how participants dealt with the negotiation of meaning, getting them to choose

between competition and cooperation. However, participants widely criticised this ambiguity.

PD3: I was not sure if I was winning because most people voted for that thing, or if it was the correct answer.

PB3: I was not even sure if winning was the point.

It should be noted that only one participant explicitly attempted to cooperate with other players, asking at the beginning of the playing session: “So, we are just going to select randomly or are we going to discuss beforehand?”, but without receiving a response from the other players. While there were participants that declared knowing about the voting mechanic, it appears that most of them embraced the activity as a competition. This is further evidenced by looking at the engagement of the second evaluation group with the prototype. All participants in this group understood the voting mechanics and discussed it while playing, knowing that the score had no value. Yet, they kept competing while playing, and only afterwards, during the focus group, they reflected on the possibility to cooperate:

PB2: But also, one of them was like: ‘the power of the family could be decided by the... something’. And it was pyramid! But we did not pick that word, so (...) we could have chosen... I mean it was our mistake [Laughs].

PD2: Yeah... so, we should have worked as a team rather than work, sort of randomly connecting words.

PC2: Individually.

PB2: Yeah.

Similarly, in the survey feedback, two participants, both with a background in game design, showed preferences towards collaboration and mentioned that the scoring and the timer tilted players towards competing:

Survey 1(2): The implication of points [score] seemed to dissuade debate. Was it a team effort or not? (...)

Survey 1(3): In this test, the players assumed it was a speed test for quickest response. (...) May want (to) offer that players can debate answer before submitting

By contrast, three other participants explicitly asked in the surveys for more competition:

Survey 3(3): More competition. Points/leader board, etc.

Besides this, participants also criticised the ambiguity of the sentences and nouns. Participant PA3 stated: “it was never clear if you were given any real information to begin with (...)”, while participant PD3 suggested having ‘right’ answers to increase the challenge of the video game. Similar suggestions also appeared in the survey feedback:

Survey 2(2): Make it so that players must get all the words before they fill the gaps. That way, players will have to choose the correct word every time.

Another participant also suggested including bluffing or deceiving aspects:

Survey 1(2): Would be interesting if there was some encouragement for some players to corrupt history (...).

This same participant proposed an alternative design for the prototype that introduced persuasion to incentivise debates among players:

PA2: (...) if the objective was to corrupt history, or if maybe... (...) one of the problems was: I did not feel there was enough encouragement to debate at the second stage because of the points. (...) what will be interesting is (...) if all the suggestions for the word sounded right, sort of, close enough, and... maybe one player was supposed to, like, corrupt the past? Like, their objective was to give the wrong answer or something like that. That could be interesting? Or like no one knows who the person trying to say the wrong thing is...

I think these suggestions are worth to be taken into analysis, as they connect well with the tradition of CJ games with trivia and bluffing games (see 6.3.a). Furthermore, the addition of ‘right’ answers and ‘deceiving’ mechanics to the prototype will have further ontological implications. On the one hand, the idea of ‘right’ answers could counter the deconstructionist approach by emphasising objectivity and suggesting that there are privileged historical narratives. As I argued before in this chapter (see 7.3), this would counter the deconstructionist approach that questions our engagement with the past as subjective. But on the other hand, the idea of introducing bluffing aspects and deliberate interpretations could be useful to reflect on the subjectivity of history, or to foster a multifaceted conceptualisation of history. This could be done by simply adding different roles for players and encouraging them to make decisions based on their roles. These roles could be aimed to encourage competition or engage with morality and ethical questions, for example voting for the less plausible options or for what other will not vote. Roles

could also be linked to historiographical approaches, showcasing different interpretations of a certain event, for example limiting certain options or changing how the sentences/nouns are phrased depending on the players' historiographical approach. Thus, there is room to further explore CJ games in future iterations of this prototype or new explorations of historical video games.

Another problematic aspect that generated unintentional ambiguity was the distinction between the two parts of the prototype. Each section of the prototype entailed different styles of gameplay and mechanics. As explained in the previous chapter (see 6.4.b), I ultimately decided to connect them with the aid of storytelling. However, I was concerned with letting players familiarise with the controls, so in the final prototype I disseminated the information through different cutscenes before each of the acts. This was not a successful approach as participants struggled to interrelate both parts and to understand their motivations. For example, PB3 stated: "It was a bit confusing (...) I did not know the objective. In the beginning, when we go back in time, what was our objective? Why should we choose the 'PhD' over 'the Nile river'?". Similarly, participant PA3 stated:

PA3: (...) there was no motivation, it seems, to even contemplate what data to pick, so it just felt kind of random (...) I think if it was set up (...) with a goal or felt like a competition, then first (...) there is some type of motivation, (...) to be able to feel like there is a need to like try to analyse or pick something intellectually, which I think that is why people finish so quickly, and then when you get to the second part, where you start questioning: 'well, why are these considered...'. I think that will bring out if the second part is about challenging people's perception of what is right.

In this sense, there are some aspects that need to be polished in future iterations to avoid confusion. Attempts to present objectives and motivations through storytelling require a better execution and timing. Other considerations, suggested by participants, like adding the possibility to either review the collected data, or be more selective about it, could enhance the experience. However, a certain level of ambiguity, especially regarding competition and cooperation, proved to be useful, as it fostered conversations afterwards regarding whether history is made by identifying objective or 'right' answers, or by finding an interpretation with the consensus of peers.

Finally, while all participants were aware at the end of the activity that they were the ones making the sentences, it is possible that, without a clear statement on the fictional orientation of these sentences, players might interpret them as facts. The objective of the

prototype was not to make believe these sentences were historical facts, but to address the process of creating historical knowledge. However, I intentionally avoided treating the sentences as fictional to ensure participants view the prototype as a historical video game. In a controlled setting, hiding and administering information can lead to critical experiences. A reference I used for this was Brenda Romero's Train (Brathwaite, 2009), a board game-art piece where players ship tokens inside trains, only to find at the end that the game represented a metaphor for the transportation of people to concentration camps during WWII.

For *Time Historians*, I observed that recognising players' authority behind the sentences after they had played the prototype had a strong effect, encouraging participants to engage in historiographical debates as shown in the previous section of this chapter. However, this could be problematic in a non-controlled setting where people play the game without further orientation or debate incited by the researcher. I reflect there might be ways to introduce this reflection within the game to create an independent experience, and that it will require some type of metalepsis where players realise the connection between their in-game actions and real-life history. But this is left for further iterations of the prototype.

7.4.c Managing Storytelling and Metalepsis

Aiming to create a concise narrative throughout the prototype I decided to include a framing narrative, a story that justifies and gives context to the affordances and representations (see 6.4.b). However, while this was relevant for exploring a deconstructionist approach, I was not able to use storytelling adequately to achieve the objectives. The main issue was that the video game did not catch the participants' attention during the explanation of the objectives and instructions, which hindered their engagement with the prototype. I purposely tried to mix animated images with textual information to catch their interest. But from participants' reactions, I recognise that the explanatory cut-scenes were long, the animation time was slow, and the information was given in a confusing way. This was not identified in previous tests of the prototype. Simplifying the objectives and input and presenting it to the players in the most direct possible way should have been a priority. Other forms of storytelling could also allow for better engagement. For example, participant PA2 suggested adding images representing the outcome of players' consensus, to make the experience more enjoyable.

Moreover, I purposely included metaleptic moments throughout the cutscenes, dialogues, and visual assets, that aimed to prompt further questions about the settings of the video game. However, for the most part these references seemed to have gone unnoticed by participants. The story was intentionally written to be comical and satirical, and in this sense, the included metaleptic moments, where the text addresses players and their context directly, were generally responded with laughs. But beyond that, no mention of the interface's theatre-like design or the ulterior setting of the prototype were shared. Only participants in group 2 brought up the backgrounds and NPCs' designs, but they mainly focussed on how the visuals failed to represent the historical setting rather than questioning what the setting was:

PB2: I mean, we said like... the people did not seem like they were part of the past

PD2: I would not have known it was ancient Egypt unless...

PB2: There were some pyramids in the background, were not they? But that was not a connection.

PD2: But that could still be the present.

PB2: Yeah, it could be present, yeah...

PC2: And the people you interact with... appeared to be...

PA2: Like, they look very contemporary

PC2: A bit hipster [Laughs]

PB2: Yeah

PA2: Which might be the point (...) I interpreted it like there are supposed to be historians from... now? I do not know; I did not quite know what that was implying.

I contend that some of the metaleptic references, for example those regarding the interface, went unnoticed because these are aspects of video games that players usually do not focus on, or they already expect them to transgress the framing narrative of the video game. Beyond that, metalepsis can be disregarded by the player when its disruption is considered negatively. For example, participant PD3 mentioned about the dialogues: "one moment it said something about... video games? And I was like, well that is not very historical... Skip!". Regardless, while the evaluation of the prototype might not have proved that these explicit forms of metalepsis in the narrative were useful for conveying a deconstructionist historiographical approach, I still believe metalepsis can be relevant

at higher-levels of analysis, where players sit to understand and negotiate the meaning of the video game they played. They allow to set a mood for the emergence of subversive narratives, that can cross pre-established borders. Improving the storytelling and the pace in future iterations of *Time Historians* could improve their effectiveness.

7.4.d Managing Space

Considering the feedback from the surveys (see 7.2), the prototype did not manage to encourage explorations of the virtual environment. As I argued before (see 6.3.c), space is an important component of video games (Aarseth, 2001, p. 154; Juul, 2005, p. 188). Engagement with this aspect was limited by the time and scope of the research, but I think it must be considered for further iterations of this prototype. Specifically, the evaluation showed that CJ games can be combined with virtual environments to explore deconstructionist history by adding more room for interpretation. The prototype only offers the environment as a metaphor for the card deck, but within this space information can also be questioned, criticised, and compared. Adding multiple sources and mechanics that allow to contrast or analyse data could further enhance the experience, give more relevance to the virtual space and motivate its exploration. This was suggested by participants in the first group:

PD1: (...)You pick enough knowledge and choose what to carry with you, but there was not the option to abandon something if you find something more useful, there was not that revising aspect to it, which you would have in being a historian, you will be able to revise your theories and your knowledge, whereas (here) you could not, you know, I picked 'PhD' and could not do anything with it... which I guess is what life is like...

As well as in the second group:

PC2: (Instead of) just wandering around and talking to random NPCs and getting information from them, could your character go and get information from different sources?... So, I know that makes it a bit more complicated to code, but, if you are talking about the way that we construct historical narrative.

PE2: Yes!

PB2: Or there could be something like... they could go and look at some hieroglyphs... so they get information from that rather than from a person who tells you something.

PC2: Yeah.

PE2: Yes.

(...)

PA2: Yeah, it is like determining whether something is believable, you know, like should we trust this source or not? (...)

Finally, feedback from participants PD3 and PB2 suggested the need to explore more historical contexts, something that was part of the design plan but needed to be restrained to comply with the schedule. Further iterations should aim to add this multiplicity, as it was also a relevant consideration during the design process.

7.4.e Managing Engagement with Deconstructionist History

Finally, I want to directly address the potential that this prototype showed for engaging with deconstructionist history. *Time Historians* aimed to achieve this by allowing players to explore three core ideas: subjectivity, interpretation, and consensus. I engaged with these three concepts because I considered them relevant in the writing history and expected that they could invite players to reflect on this process, as deconstructionist history do (Munslow, 1997, p. 18; 2006, p. 80). The exploration of these concepts prompted a narrative that was supported by the story and the aesthetics of the game, aiming to create an experience solely engaging with deconstructionist history. In this sense, the prototype demonstrated how video games can engage with this historiographical approach. However, the experience that the prototype creates will not be consumed in a vacuum: Players will bring with them their experience and knowledge (Calleja 2010, p. 342), and this should be taken into account when trying to manage players' engagement with a specific historiographical idea.

Because of this, I argued earlier that such potential needs to be confined within the realm of public history (see 2.4.a). Talking about video games and popular culture, participants PD3 and PC3 mentioned how they inform vocabulary and notions about academic disciplines. I contend that the reach of a historical video game that explores deconstructionist history, or any historiographical approach, should be oriented towards this goal of informing a general or public perception of history, rather than offering a complete theoretical framework, or aspiring to change participants' mindsets on how they conceptualise history. It can offer concise ideas that they can appropriate and mix with their already existing conceptualisations. In this sense, participants in the third evaluation group discussed extensively, based on their experiences teaching and learning, about how

there are different ways to engage with knowledge, and how some strategies found in games, like trial and error, competition, or empathy, can foster specific types of learning. One of the ideas they referred to was learning as a traumatising experience:

PA3: (...) The premise was an alien, and the alien spoke Spanish, so that is how you learned it. (...) the alien was trapped in a maze with a creature that will eat it, so if you could not communicate with your alien effectively enough to get them out, they will get eaten and die. And out of sixteen students, ten did not make it, and they were like, eight to ten-year olds, and they were very emotionally upset, they have gotten really emotionally attached to the alien during the course of the term. (...) So that is another way of engagement (...) it also has this emotional attachment...

PC3: That is traumatising for a 10-years old...

PA3: Yes, but that is learning.

PC3: Absolutely, it takes their mind of what they are actually doing which is Spanish or the language they focus.

PA3: Yeah, I guess... (...) it is either interesting or the hard things that you learn what you remember later.

Participants' considerations in this regard, although not referring to the prototype, allowed me to reflect about how the meaning of the prototype is mediated. While the prototype lets players create their own historical narratives and shows a more literal representation of history, what allows for such things to transpire for the players is the realisation of consensus through the voting mechanics, as an unanticipated and almost traumatising moment that forces them to reflect on their previous actions and decisions.

Players' realisation of the voting mechanic, during or after playing, changes their perception of the prototypes' narrative. It pushes them towards recognising the indirect gnoseological narrative of the prototype, where the goal is to reflect about the meaning of a first order concept (Todorov, 1971, p. 40). Kee (2011, p. 433) previously suggested that this narrative form allowed to engage with deconstructionist history. I avoided including it explicitly in the prototype because, when testing the low-tech prototypes, it seemed to discourage players' participation (see 6.3.b). However, the ambiguity of the prototype helped to sort this barrier. Letting players realise about the search of meaning after they played emphasised the gnoseological reflection, as they have to re-frame their previous experience under a new lens.

In this sense, the evaluation proved that, through this strategy of ambiguity and later revelation, the prototype encouraged participants to recognise directly deconstructionist ideas. Many participants defined the prototype's approach to history as a process, as a construction, and as a consensus. This implies asseverations that connect with a deconstructionist historiographical approach and sets the focus on how history, as a narrative, is created.

Using a surprising realisation is not the only way in which this could have been done. As the evaluation participants suggested above, there are other forms in which games and video games may encourage specific learning. But regardless of the approach, when it comes to exploring historiography in historical video games, I suggest that the goal must be towards these types of outcomes, where the video game experience aims to arouse players' previous knowledge, and feed concrete axioms into a public conceptualisation of history, with the expectation that they can further expand people's perception of history.

7.5 Chapter Summary

In this chapter, I have analysed the reception of a deconstructionist historical video game prototype, *Time Historians*, aiming to evaluate the design and to understand how people engaged with the historical narratives and historiographical approaches that emerged from it.

First (7.2), I showed participants' positive engagement with the prototype, and their enjoyment towards its dialogues, mechanics, and tone. Despite the intentional ambiguities of the prototype, that generated struggles with the rules and objectives, the post-play surveys show that the prototype successfully allowed the participants to explore deconstructionist history. *Time Historians* managed to share ideas about history as a constructed narrative among the participants, and they recognised engaging with historying with the explicit aim of creating historical narratives.

Looking at the discussions that emerged from the focus groups (7.3), I showed how participants associated the prototype with a constructivist approach towards history and disciplinary learning. The voting mechanics were particularly relevant for encouraging these discussions. Concerns around objectivity and historical accuracy were also present, similarly to how they appeared during the design workshops. I associated this reaction

with the perceived limits of what historical video games entail and what can be represented in them. Furthermore, this proves how the lens of public history strongly affects the negotiation of meaning in historical video games.

Then (7.4), I analysed aspects of the prototype that were purposely included to explore deconstructionist history. The evaluation of the prototype confirmed the relevance of including meaningful affordances and storytelling. The genre of CJ games proved to be useful for exploring deconstructionist history by highlighting concepts like consensus among participants, reproducing an explicit and recognisable form of historying, and encouraging debates around historical meaning. It also suggested further engagements with metalepsis, virtual space, and multiple contexts. Finally, I argued that explorations of historiographical approaches through video game design should aim for motivating players' critical response and inserting axioms that widen their general conceptualisation of history.

After analysing the evaluation of the prototype designed for this project, in the next chapter I have outlined the conclusions of this research.

Chapter 8. Conclusions

8.1 Contribution of this Thesis

In this chapter, I have summarised the main arguments developed throughout the thesis, aiming to answer the core research questions proposed in chapter 1. The objective of this thesis has been to examine the potential of historical video games for exploring deconstructionist history. In the field of historical video game studies, the critical analysis of the role that video games have in the construction and representation of historical narratives and epistemologies has become a central focus. In recent years, several approaches have been proposed exploring how particular forms of historiographical representation and narrative arise and become embedded within historical video games. In contribution to these debates, I used deconstructionist history as the particular focus of this research. Previous studies have widely discussed the relation between this historiographical approach and video games, without a clear resolution (see 2.3.c). The core of their arguments can be summarised under the premise that video games tend to offer players a certain control over the historical narrative, and this unintentionally resonates with the idea of history as a constructed narrative and the focus towards historying that deconstructionist history entails.

This research addressed this topic and these arguments, with the subsequent questions that emerge from them: how formal aspects of the medium exert pressure over epistemology, and how historiographical ideas can consciously be shared with players. Considering these questions, I identified three different perspectives towards this topic that needed to be addressed: (1) A formal perspective that looks at the unique aspects of the medium that allow it to embrace a deconstructionist approach; (2) a design perspective that considers the possibilities of engaging with this approach through video game design, and (3) a reception perspective that evaluates the possibilities of engaging with this approach through playing a video game.

I have covered these questions and perspectives by using an interdisciplinary approach that combined design practice, formal analysis, and reception studies. Such approach to the topic of historical video games and epistemology is also a unique contribution to the field. While interdisciplinarity is unavoidable in historical video game studies, previous

research on epistemology has mainly relied on the formal analysis of existing video games. Adding the design and reception dimensions to the study of this topic should provide a better range to address key issues like the above mentioned. In addition to that, for engaging with reception studies I decided to work mainly with university students, a category of participants that has also been unusual in previous research (see 3.3).

Beyond the topic, approach, and context that make this research unique, there is also a contribution to the field towards understanding the relation between historical video games and epistemology. Each phase of the research, analysed in the prior chapters, provided several outcomes towards answering the core research questions of how the medium exerts pressure over epistemology, and how participants can engage with concrete historiographical ideas.

In chapter 4, through analysing people's engagement with historical video games, I noticed relevant tension between: video games, perceived as ludic and fictional; and history, understood as serious and accurate. Such tension transpires in multiple ways. From how participants saw the context of production and consumption of video games, to how some first order concepts about history get prioritised within a video game.

In chapter 5, I further analysed these tensions, by looking at how participants engaged with creating their own historical video games, and by association, historical narratives within this format. The outcome of this analysis is a diegetic framework for exploring historical narratives in historical video games. I consider this to be the core contribution of this research. Such framework differentiates between three levels in the historical narrative, corresponding to: (1) narratives generated through play, (2) narratives embedded in the video game, and (3) narratives surrounding the engagement with historical video games. This framework is aimed to analyse and design historical video games and their reception. Using this framework, it is possible to navigate through player's tensions and identify how core aspects of video games can be used to consciously present a certain epistemology.

In chapter 6, I relied on this diegetic framework to embrace the design of a historical video game prototype, *Time Historians*, that aims to explore and convey a deconstructionist historiographical approach. From this design experience, I draw further observations about the medium and how historical narratives in historical video games

can be created. I particularly highlighted designers' intentionality, recognising the authorship behind video games as a key ingredient for exploring a concrete epistemology through video game design. I also stressed the relevance of identifying meaningful affordances, that can be in line with such intentionality and should be used to introduce further historiographical ideas. And finally, I brought up the idea of metaleptic devices, as strategies to traverse the multiple diegetic levels of the historical narratives in historical video games and subvert perceived tensions.

My observations on the analysis of the prototype, shared in chapter 7, prompted a final core argument about the relevance of understanding historical video games as part of public history. When considering the potential of this medium for engaging with historiography, I noticed the importance of understanding public history as a realm of mixed and contradictory epistemologies, where clear-cut historiographical approaches are hard to find. In such context, the aim of scholarly explorations such as this project, or any historical video game that purposely embeds and wants to share a certain conceptualisation of history, should be towards introducing new axioms into this pool of ideas that is public history. In other words, giving players new tools for embracing history, so they can have more options to critically approach the past.

Overall, through its research topic, approach, and context of study, this thesis offers a unique contribution to knowledge that includes a new framework for analysing historical video games, guidelines for the intentional inclusion of historiographical ideas in the design of historical video games, and reflections on the role of video games as public history. As such, this research addresses three interconnected areas: Historical video game studies, historical video game design, and public history. I further expand on the contributions to each of these areas in the next sections, and I also highlight emerging ideas with relevance for future work.

8.2 Historical Video Game Studies

This research focused on the relation between historical video games and historiographical approaches, particularly, deconstructionist history. Understanding the possibilities of historical video games to convey epistemological considerations has been a relevant pursuit within the field. This is mainly because the considerations of historical video games as historical narratives also depend on addressing how these first order ideas

inform and permeate through this medium. But some historiographical approaches have been more complex to analyse than others. Previous research has particularly struggled in understanding how video games relate to a deconstructionist historiographical approach, mainly because the complexity of the medium seems to incidentally emphasise deconstructionist ideas, either through uncertainty, authoring, multiplicity (Uricchio, 2005, p. 333; Gish, 2010, p. 168; Chapman, 2013c, p. 141, 2016a, pp. 154, 249; Salvati and Bullinger, 2013, p. 156; Copplestone, 2017, p. 419), room for counterfactual explorations (Uricchio, 2005, p. 335; MacCallum-Stewart and Parsler, 2007, p. 205; Apperley, 2013, p. 190; Chapman, 2016a, p. 233), or for *historying* (Chapman, 2016a, pp. 183, 189). Because of this, the exploration of deconstructionist history in video games also fosters our general comprehension of how historical video games operate as historical narratives and relate to historiographical approaches.

Going through this design-based research I have been able to gather data from multiple sources, including people's perceptions of historical video games, their engagement with historical video game design, and from actively engaging with a design process. I have shown how people are able to identify concrete historiographical ideas within historical video games (see 4.3 and 5.3.c), and how they have referred to video games as a distinctive form of narrative (see 4.2 and 5.2), one that will require a unique approach for studying its epistemological references. Combining this data with what has been suggested by other researchers, I have proposed an approach to understanding how historical narratives in historical video games are conceived and how they function (see 5.4). This approach is based on tackling the different diegetic levels, narratives encompassed within each other (Genette, 1983, pp. 228–229), embedded in these historical narratives: (1) a metadiegetic level with aspects regarding player's narratives; (2) an intradiegetic level related to designer's narratives; and (3) an extradiegetic level regarding public or academic narratives around history and video games. This diegetic framework proposed was applied for the design of a historical video game prototype, but it can also be used for the analysis of existing historical video games, as well as for the analysis of people's engagement with historical video games.

When crafting or playing a historical video game, certain tensions arise between each of these levels, as the historical narrative is negotiated between player's interpretations, developer's intentionality, and paradigms generally assimilated. I argued earlier (see

2.2.a) that video games are a unique medium mainly because of their unique mediality that entails a multimodal acknowledgement and engagement of its own interactivity (Rokeby, 1995, p. 133; Zimmerman, 2004, p. 158). When considering this diegetic structure, I further suggested that video games' mediality is manifested through the predominance of metalepsis, subversions between diegetic levels (Genette, 1983, pp. 234–235), that foster the tensions between them while, at the same time, recognising the negotiation of meaning.

Summarising, I have presented three core arguments that directly address previous research on historical video games and epistemology: that historical narratives are comprised through multiple diegetic levels, that video games encourage the constant subversion of these diegetic levels through embedded metaleptic structures, and that this is what allows to consider video games as postmodern and should allow to further engage with deconstructionist history.

I have also given an account of how meaning in historical video games is negotiated between players, authors, and the medium (see 2.4.c). The idea of negotiated meaning proved important throughout this research for considering how historical video games engage with historiographical approaches. Beyond understanding the form and the medium, we also must address the intentionality behind them and its position within the realm of public history. Understanding historical video games as historical narratives implies assuming that they convey epistemological stances. But it should also imply that those who design video games and create historical narratives rely on, and express, first order ideas. Acknowledging the possibility of this intentionality should help understand how concepts and ideas can be shared through this medium. For example, this assertion should invite to reconsider previous statements on certain video games as open-ontological structures that allow for multiple epistemologies. Historical video games that allow players to construct their own historical narratives are not open-ontological, in the sense that they also entail a clear ontological claim.

Furthermore, addressing intentionality can help us nurture the idea of scholarly games (Clyde, Hopkins and Wilkinson, 2012, p. 14; Spring, 2014, p. 218; Carvalho, 2017, p. 819). This do not only have to refer to applying and generating data through video games, but also to work with video games as philosophical tools, used for the expression and exploration of first order ideas (Gualeni, 2015, p. 9).

On the other hand, I also argue for engaging with historical video games as sites of public history. This means assuming players as crucial in the negotiation of meaning, but also understanding how their conceptualisation of history and historical video games is embedded in a plethora of references and axioms. Researchers in historical video game studies have extensively addressed historical video games as forms of popular and public history (see 2.4.a), but I suggest this recognition can be more fruitful if, besides pulling popular history towards academia, we also push academia towards public history. This means, taking benefit of the reach and relevance of these forms of history for both: sharing ideas about history, and expanding our understanding of historical knowledge.

Finally, with this research I wanted to contribute to the state of the art in the field of historical video game studies. The arguments developed in this research regarding how the medium relates to deconstructionist history, are set in relation with existing theorisations in the field in order to foster discussions. For example, the diegetic structure I have proposed here derives from Chapman's framework (2016) and application of narrativist theorisations to historical video games. I contend that there is more that this approach can offer, and there are other considerations that should be made to expand it or move beyond it. Similarly, the reference to metalepsis in this thesis comes as a reflection over what previous authors have referred to in terms of counterfactual history, authoring, subversion, and reflexivity regarding the medium (Uricchio, 2005; MacCallum-Stewart and Parsler, 2007; Gish, 2010; Apperley, 2013; Chapman, 2013c, 2016a; Salvati and Bullinger, 2013; Copplestone, 2017). And lastly, the considerations over intentionality and public history are also in line with what fellow researchers are currently pursuing in the field (Beavers and FitzGerald, 2016; Copplestone, 2017; Hiriart, 2017; Houghton, 2018). There is a need to consolidate our engagement with these two points, intentionality and public history, and to work through them for expanding our knowledge on this topic.

8.3 Video Game Design

Throughout this research I have engaged with the design of a historical video game prototype, informed by and aimed towards exploring a deconstructionist historiographical approach. Prior to this research, my short experience with video game design and programming motivated my interest for the medium and its capabilities (Cruz Martínez, 2015, 2016; Cruz Martínez and Martínez Martínez, 2017). It showed me that our

perception of video games changes drastically when moving from the position of consumers to that of creators. In this sense, engaging with this research has reinforced my convictions regarding the medium and what we can learn from it by becoming creators.

An example of this can be seen in the definition of video game that I have used for this research. This definition has been developed throughout the course of the investigation. Coming from cultural studies, my initial approach to this thesis was to treat video games as a text, like cinema or literature. Later, when engaging with video game design, I leaned towards working with video games as systems of rules and mechanics, like other forms of games. Ultimately, I found that both approaches were insufficient for exploring the medium the way I wanted to and ended up with the definition of video games as a medium that I have proposed at the beginning of the thesis (see 2.2.a). This experience has led me to understand that definitions of something as complex as video games need to be flexible and dynamic. I have ended up believing that definitional debates should not be aimed towards proposing a categorical definition, but to reconsider our perception of video games and offer multiple perspectives to engage with it. In this sense, the design process allowed me to shape a relevant concept and find a useful approach that could fit the need of this research.

Besides these general reflections about video games, the core outcome from this engagement with video game design has been a series of design guidelines, aspects that I have identified as relevant for the design of deconstructionist historical video games. These aspects were derived from the design workshops and were evaluated by testing the developed prototype. I compile these aspects here, pointing at why they should be considered and how they can be applied.

I should clarify first that I do not believe there is a privileged approach for exploring deconstructionist history in historical video games. I have argued before (see 6.3.a) my concerns regarding associating types of historical video games and genres with certain epistemological claims. Firstly, because any genre can be subverted to convey different ideas (see 6.2). But also, because the multimodality of the medium hints towards a complex mix of axioms cohabiting (Uricchio, 2005, p. 335; Chapman, 2016a, p. 150), as I corroborated looking at people's perception of historical video games (see 4.3 and 5.3.c). When purposely attempting to convey a certain historiographical approach, I argue it is important to address these two points: that any genre can be subverted towards a certain

epistemology, and that the different modes of the medium should aim towards the same direction in order to ensure that the desired approach is explored.

The first epistemological guideline highlighted in this research is the identification of affordances, or the possible actions available for players. Specifically, the aim needs to be set on creating meaningful affordances, those that will allow to engage with history, and particularly, with first order concepts. Participants of the design workshops referred to these types of affordances as meaningful interactions and identified the need for them to be interconnected with the framing narrative and the historical settings of the game. I considered this to be the clearest statement from participants of the design workshops, and I set it as my first objective in the design of *Time Historians* with positive results.

In the case of identifying affordances that could relate to deconstructionist history, I proposed looking at metagames. Metagames, or games about, around, within, or without games (Boluk and LeMieux, 2017, p. 25), entail a further reflexivity by inviting players to critically engage with the medium from atypical perspectives. Furthermore, and in line with my previous argument, I contend that metagames are, to some extent, a metaleptic expression. They tend to disrupt the balance between intradiegetic and extradiegetic narrative levels in video games by allowing movements from outside the screen to inside of it and vice-versa. For example, breaking players' immersion, introducing aspects of the game outside of the display, or referring to the player's context within the framing narrative. By purposely pursuing forms of metagaming and interconnecting them with discourses about history, I was able to identify and apply mechanics in *Time Historians* that highlight the idea of consensus in relation to history and historical practice and were recognised and addressed by players (see 7.3). Based on these findings, I suggest that any attempt to explore epistemologies in historical video games should emphasise on identifying affordances that convey first order concepts, and that metagames should be regarded as a departure point for further explorations of deconstructionist history.

The second guideline to consider refers to the composition of narrative structures. The narrative of the video game needs to tie with the affordances in order to provide them with meaning and relate them to historical discourses. However, narrative structures also entail another function: connecting the metadiegetic and the intradiegetic levels of the historical narrative, that is, the narrative that comes with the game, and the one that players create. Depending on how this relation is mediated, the epistemological

considerations can vastly vary. For example, open narrative structures emphasise the ludonarrative, emerging from players' interpretations, over the framing narrative, entailed within the game (Chapman, 2016a, p. 130). By allowing multiple choices, outcomes, options, and customisations, this structure accentuates ambiguity and reflexivity. This means that the authoring of the historical narrative can be further questioned by the player.

Regarding deconstruction, it has been stated before that open story and open ontological narrative structures convey certain ideas from this approach (Chapman, 2016a, p. 129). I relied on these structures in the prototype, not only because of these arguments, but also because of the acceptance that these types of structures seemed to have among participants of the design workshops. However, I further suggested that for exploring deconstruction, the narrative structure should also question the intradiegetic narrative that is presented through the game, and address the extradiegetic narrative or the context of the player. In other words, while open story and open ontological structures are meant to explain negotiation between meta and intradiegetic levels, further metaleptic strategies, that also include an extradiegetic narrative and that subvert or disrupt the three levels, need to be considered. Only when the video game narrative aims to reach beyond the game or aims to intentionally offer a critical look at privileged historical narratives, it manages to explore a deconstructionist approach.

In this regard, the final epistemological guideline suggested is to set the goal of the design on incentivising a critical engagement with history. It has been argued that all historical video games might entail a form of historying, and thus engage with deconstructionist ideas (Chapman, 2013c, p. 250). However, I contend that a deconstructionist historical video game that intentionally aims to explore deconstructionist history should allow for a self-reflexive form of historying, one in which players can explicitly recognise their aim of creating historical narratives and ponder about it. It is not about being able to create any narrative players desire, but about recognising the process of creating a historical narrative, the intricacies behind the process, the implications of their words for understanding the past, and the reach and limitations of our knowledge. In other words, beyond creating a historical narrative and exploring counterfactual history, a deconstructionist historical video game should allow to reflect on that process, dismissing the past and focusing on the historical narrative itself.

This can apply as well to explorations of other epistemologies, in the sense that they must focus on openly addressing and presenting an engagement with history. Such position entails a recognition, by developers and by the video game itself, in their intentionality and epistemological perspective. It implies both, relying on theory to inform the design, and expanding the design to cover core concepts and ideas. Only by addressing this point, a proper exploration of a historiographical perspective can be achieved, as without a clear intention there is no way to determine the intended perspective of such historical video games.

There have been some aspects that I was not able to further explore within this thesis, but might be important for future research. As explained before (see 6.3.a), for the design process of this research I decided to engage with creative judgement games (CJ games). I found that this particular type of games offered interesting affordances that, when adequately presented, allowed to tackle concepts like subjectivity, interpretation, and consensus in relation to history. This thesis only scratches the surface in this regard, as the genre of CJ could lead to further explorations and interpretations of deconstructionist historical video games. *Time Historians* focuses more on exploring consensus than subjectivity or interpretation, and thus it should be possible to re-think how this concept can be changed to explore the other concepts more. The genre of CJ games is also open to further interpretation regarding how it can relate to history. The approach that I have offered is only one of many, and when considering the inclusion of bluffing and deceiving mechanics there are more options to explore.

Another consideration that is left for further research is the relevance and possibilities of video games' virtual space. The virtual environments that video games can create are considered a crucial aspect of the medium (Aarseth, 2001, p. 154; Juul, 2005, p. 188). The combination of CJ with virtual environments needs to be further analysed as it can lead to innovative forms of encouraging reflexivity. For example, during the design process, while avoiding falling into skeuomorphism typical of CJ video games, I found that the exploration of virtual environments could lead to highlighting subjectivity by letting players find and inspect different historical sources throughout a landscape. Due to time and scope constraints, this suggestion was not pursued, but it should be in future projects.

Similarly, other attempts to explore how virtual environments could allow for engaging with deconstructionist history need to be considered. Chapman's considerations of virtual spaces as canvases (Chapman, 2016a, p. 104) represents a guidance in this regard, but they should incorporate somehow an explicit reflexivity about historying in order to pursue a deconstructionist aim, as I state in the prior paragraphs.

The inclusion of gnoseological narratives, those that entail an open-ended pursuit of meaning, where the goal is to actively reflect around a phenomenon or situation (Todorov, 1971, p. 40), also requires to be further analysed. As I explain before (see 6.2), I decided to avoid explicitly using this narrative form in the prototype because during the low-tech prototyping stage it seemed to create an unnecessarily complex setting that discouraged players' engagement. In retrospect, I reflect this form of narrative could still be integrated explicitly, and further enhance the deconstructionist approach. Regardless, the prototype ended up engaging with a certain type of gnoseological narrative. As I explained before (see 7.4.e), the elements of ambiguity that were included in the prototype and led to participants discovering the core mechanics after they played the game, allowed them to reframe their understanding of the prototype and create a meaningful reflective experience where players had to re-consider their previous actions. This unintended reflection also encouraged me to suggest that gnoseological narratives should be taken into account for further research, as they could allow to address explicitly the examination of historying.

Finally, metalepsis and metaleptic structures need to be further studied. I identified these structures through this research and aimed to further analyse them. However, some of the metaleptic aspects purposely integrated in *Time Historians* were almost unnoticed by participants. This raises questions about the implementation and relevancy of metalepsis, as well as players' familiarity with metaleptic strategies that could have obscure their presence. As I discussed above, the essence of metagames, and by extension CJ games, also entails a degree of metalepsis, that in this case was effectively conveyed through the prototype. Regardless, I still believe these structures can be crucial for engaging with deconstructionist history and any historiographical approach in general, because they operate on the scaffolding of historical video games. By breaking the diegetic levels, historiographical ideas can be directly addressed and presented to players. The aim for future design research could be set on understanding how they operate and identifying

new forms of metalepsis that video games could allow. For example, by relying on different modes of expression available in the medium, such as aural and haptic feedback, that could create new narrative levels through sounds or vibration, inviting players to reflect on their game experience from a different perspective and address the historical narrative critically.

Overall, I contend that the medium of video games can be used for further philosophical explorations. I suggest we must expand the idea of scholarly games to include the creation of epistemological or historiographical video games. These type of video games, informed by, and aimed towards, the exploration of historiographical approaches, can help us to understand how historical narratives in video games are created, what they entail, and what they can manage to represent. Furthermore, these types of video games can also widen the public conceptualisation of history, introducing new ideas and room for reflection.

8.4 Public History

This research has also engaged with reception studies when trying to understand how video games could allow players to explore a deconstructionist historiographical approach. Throughout the research I have considered people's perception of historical video games to inform the design of the prototype, as well as people's feedback on the final prototype. In this regard, one of the outcomes of this research goes in line with acknowledging historical video games as sites of public history and recognising the limitations and possibilities that this offers for further epistemological engagements.

I have shown throughout this thesis (see 4.2 and 5.3.a) how people relied on popular history to discuss historical video games, and how their considerations around historiography in this medium were dependent on a public conceptualisation of history where axioms from multiple approaches cohabit. This suggests that, in order to understand the relation between historiography in historical video games, we need to recognise the disjointed collection of historiographical discourses and axioms that comprise a public conceptualisation of history. Additionally, people's perceptions of the medium as oriented towards entertainment and fiction also stresses a tension between video games and history that is embedded in the discourses surrounding historical video games. To distinguish the historical from the fictional becomes an ontological concern

that makes difficult to discuss differing historiographical paradigms. This is highly problematic, as while video games may represent forms of historying and may openly accept the relevance of fiction in the creation of historical narratives, their relevance for reflecting about historical practice is nullified when these assertions do not move beyond the screen (Aarseth, 1997, pp. 86–87).

Attempting to address these concerns, I have brought two suggestions or options to deal with this. First, to further embrace the ludic frame as a strategy to avoid pressures from other persistent axioms within public conceptualisations of history. This means, to separate historical video games from previous ideas of history, in order to have the freedom to introduce new concepts without having to negotiate, at first instance, with player's previous knowledge. When framing historical video games as forms of entertainment and fiction there is room to embrace historiographical approaches without being questioned by their adequacy to popular paradigms. And secondly, to reference to history not within the screen but outside of it, aiming to use mechanics and narratives to create a connection with player's context and environment that moves reflexivity beyond the screen. In other words, I suggest that the aim should not be about how history is represented within the video game, but how the video game can purposely motivate player's critical response towards it. To expand the (hi)story-play-space, the space in which the historical narrative is built (Chapman, 2016a, p. 51), in order to include how people refers to the video game itself.

At the same time, I suggest that historical video games cannot aim for presenting a historiographical approach that players can assimilate as a whole. Rather, the outcome needs to aim towards people's conceptualisation of history, which is built upon public history and popular representations. The goal must be set towards tapping into this public conceptualisation of history and to introduce further axioms within it. For example, in the case of *Time Historians*, ideas like 'history is a narrative' or 'history is built by consensus', that could widen the understanding of history and lead to further questions. I consider this to be the second outcome that this research offers for the discussion of historical video games and public history. The findings of the evaluation of the prototype showed clear evidence that participants recognised the deconstructionist approach, which suggests that this take on historical video game design can allow to intentionally introduce specific ideas in players' conceptualisation of history.

Regardless of the contributions that this thesis may offer, discussions around how public history can predispose people's perception of historical video games require further research. Strategies to subvert these predispositions or address them can also vary. For the prototype designed for this research, I ended up relying on ambiguity to create a moment of disruption where players had to question their previous actions. I suggest player's previous knowledge plays a crucial role when navigating through the mix of discourses found in popular history, favouring those ideas that appear more familiar to them. By first allowing players to share their previous conceptualisation of history, and later challenging these arguments, a further understanding of historiography can be gained. But I think this is not the only strategy that could have been used to induce the assimilation of new axioms, and further approaches could be identified and experimented with. Also, this strategy may be useful in closed-testing environments, but it could be problematic in a non-controlled setting where people play the game without further orientation or debate incited by the researcher. I recognise there might be ways to introduce this reflection within the game to create an independent experience, and that it will require some type of metalepsis where players realise the connection between their in-game actions and real-life history. But this is left for further iterations of the prototype.

Finally, I have noticed through the design workshops, as well as through my own experience with the design process, that design activities are particularly useful for engaging with historiography. Design entails a form of history as well, where we are forced to intimately engage with the medium, ask uncomfortable questions about how history can relate to it, and, more importantly, identify responses to those questions that are applicable and verifiable. There is room to expand on this particular route, by analysing how different groups of participants can engage with historical video games and with historiography through design activities.

8.5 Chapter Summary

In this chapter, I have addressed the conclusion of this research by summarising the main arguments presented throughout the thesis.

I have focused on answering the main research question for this study, 'what is the potential of historical video games for exploring a deconstructionist historiographical

approach?', and the secondary questions around: 'how formal aspects of the medium exert pressure over epistemology' and 'how historiographical ideas can consciously be shared with players'. I have explained the approach of this research that considers three different perspectives: formal analysis, design, and reception of historical video games.

In the first section (8.1), I offered a summary of the arguments presented through the analysis chapters of the thesis and how they addressed and answered the research questions. I stated that, through its research topic, approach, and context of study, this thesis offers a unique contribution to knowledge by offering a framework for analysing historical video games, guidelines for the intentional inclusion of historiographical ideas in the design of historical video games, and reflections on the role of video games as public history.

Moreover, I expanded on the contributions of the thesis considering three relevant areas that this research addresses: Historical video game studies, historical video game design, and public history. First (8.2), I have offered an approach to understanding historical video games in general, and its epistemological value in particular, based on a diegetic structure of the historical narratives within. I have suggested that video games' mediality is manifested through metaleptic strategies that subvert the diegetic levels of the narrative and encourage reflexivity, and that, by intentionally addressing these strategies, it is possible to convey a deconstructionist approach.

Furthermore, I argue that historical narratives in historical video games are negotiated between the medium, the authors, and the players, and thus the potential for deconstructionist history also needs to address how developers can embrace this approach for designing and how players can internalise deconstructionist ideas through playing. Regarding the first, I offered design guidelines, based on: finding meaningful affordances, crafting metaleptic framing narratives, and aiming for intentional self-reflexive outcomes (8.3). Regarding the second, I referred to historical video games as sites of public engagement and emphasised the need for motivating players' critical responses through play and inserting axioms that widen their general conceptualisation of history (8.4).

I have emphasised the need for further research in all three areas. I suggested that additional frameworks for understanding how historical video games and historiographical approaches relate are needed. Similarly, further design-based research

aiming to explore aspects touched in this thesis, like metalepsis, creative judgement, or virtual space, could expand the conclusions presented here. And finally, I suggested that a focus on public history and how popular conceptualisations of history can predispose our engagement with epistemology should be pursued further.

A piece of design-based research like this can be complex and challenging, with different types of data and moments of creative endeavour that forcefully change our perspective of the object of study. My goal throughout this project has been to contribute to the field in a topic that needs particular attention. I consider this research to be an experiment towards approaching historical video games from a different perspective. I have become confident that addressing the philosophy of history from within the medium can bring meaningful insights, as it forces one to identify answers that are functional and applicable. Moreover, I suggest historians should embrace an authoring role in the creation of historical video games and explore new forms of conveying history and the past. As the field of historical video game studies grows and expands towards multiple directions, I am grateful to be part of this history.

Chapter 9. References

9.1 Bibliography

2019 Video Game Industry Statistics, Trends & Data (2019) WePC. Available at: <https://www.wepc.com/news/video-game-statistics/#video-gaming-industry-overview> (Accessed: 29.03.19).

Aarseth, E. (1997) *Cybertext. Perspectives on Ergodic Literature*. Baltimore and London: Johns Hopkins University Press.

Aarseth, E. (2001) 'Allegories of Space. The Question of Spatiality in Computer Games', in Walker, J., Eskelinen, M., and Koskimaa, R. (eds) *Cybertext Yearbook 2000*. University of Jyväskylä, pp. 152–171.

Aarseth, E. and Calleja, G. (2015) 'The Word Game : The ontology of an indefinable object', in *Proceedings of the 10th International Conference on the Foundations of Digital Games (FDG 2015)*. Available at: <https://pdfs.semanticscholar.org/6c85/bdd2216a56e296cdc708af0480c4a20cd21c.pdf> (Accessed: 07.02.17).

Aarseth, E., Manovich, L., Mäyrä, F., Salen, K. and Wolf, M. J. P. (eds) (2011) *DIGAREC Keynote-Lectures 2009/10*. Postdam: Postdam University Press.

Alexander, J. W. (2013) 'Civilization and enlightenment: A study in computer gaming and history education', *The Middle Ground Journal*, 6. Available at: <http://resources.css.edu/academics/his/middleground/articles/alexander.pdf> (Accessed: 10.01.16)

Antley, J. (2012) 'Going Beyond the textual in History', *Journal of Digital Humanities*, 1(2). Available at: <http://journalofdigitalhumanities.org/1-2/going-beyond-the-textual-in-history-by-jeremy-antley/> (Accessed: 08.11.15)

Apperley, T. H. (2006) 'Virtual Unaustralia: Videogames and Australia's Colonial History', in *Proceedings of the Cultural Studies Association of Australasia*

- Conference 2006*. Available at:
https://www.academia.edu/385987/Virtual_UnAustralia_Videogames_and_Australi
 as_colonial_history (Accessed: 04.12.16)
- Apperley, T. H. (2010) *Gaming rhythms : play and counterplay from the situated to the global*. Amsterdam: Institute of Network Cultures.
- Apperley, T. H. (2013) 'Modding the Historian's Code: Historical Verosimilitude and the Counterfactual Imagination', in Kapell, M. W. and Elliott, A. B. R. (eds) *Playing with the Past. Digital Games and the Simulation of History*. London: Bloomsbury, pp. 185–198.
- Archer, B. (1995) 'The nature of research', *Co-design*, (January), pp. 6–13.
- Auger, J. (2013) 'Speculative design: crafting the speculation', *Digital Creativity*, 24(1), pp. 11–35.
- Beavers, S. and FitzGerald, E. (2016) 'Perceptions, Perspectives and Practices: A Study of the Players of Historical Games.', in *Proceedings of 1st International Joint Conference of DiGRA and FDG 2016*. Available at:
<http://oro.open.ac.uk/47298/> (Accessed: 07.04.18).
- Bentley, M. (ed.) (2006) *Companion to Historiography*. London & New York: Routledge.
- Berriman, L., Howland, K. and Courage, F. (2018) 'Recipes for Co-Production with Children and Young People', in Thomson, R., Berriman, L., and Bragg, S. (eds) *Researching Everyday Childhoods: Time, Technology and Documentation in a Digital Age*. London: Bloomsbury Academic, pp. 139–162.
- Bigelow, B. E. (1980) 'History Games and Simulations. An Evaluation', in Horn, R. E. and Cleaves, A. (eds) *The Guide to Simulations/Games for education and training*. London: SAGE. Available at:
<http://cidbimena.desastres.hn/docum/crid/Mayo2004/pdf/eng/doc3049/doc3049.htm>
 m (Accessed: 10.01.16).
- Birt, D. and Nichol, J. (1975) *Games and simulations in history*. New York: Longman.
- Bissell, T. (2010) *Extra Lives: Why Video Games Matter*. New York: Pantheon Books.

- Blakely, S. (2018) 'Sailing with the Gods: Serious games in an ancient sea', *Thersites*, 7, pp. 107–153.
- Bogost, I. (2007) *Persuasive Games: The Expressive Power of Videogames*. Cambridge & London: MIT Press.
- Boluk, S. and LeMieux, P. (2017) *Metagaming: Playing, Competing, Spectating, Cheating, Trading, Making, and Breaking Videogames*. Minneapolis: University of Minnesota Press.
- Bond, D. A. (2015) *Design and implementation of a massively multi-player online historical role-playing game*. MSc Thesis, Heriot-Watt University, Edinburgh.
- Bratteteig, T., Bødker, K., Dittrich, Y., Mogensen, P. H. and Simonsen, J. (2013) 'Methods. Organising principles and general guidelines for Participatory Design projects', in Simonsen, J. and Robertson, T. (eds) *Routledge International Handbook of Participatory Design*. London & New York: Routledge, pp. 117–144.
- Bratteteig, T. and Wagner, I. (2014) *Disentangling Participation: Power and Decision-Making in Participatory Design*. New York: Springer.
- Bristow, S. D. (1977) 'The History of Video Games', *IEEE Transactions on Consumer Electronics*, 23.
- Bruhn, J. (2016) *The intermediality of narrative literature: Medialities matter*. London: Palgrave Macmillan.
- Bryman, A. (2012) *Social Research Methods*. 4th edn. Oxford: Oxford University Press.
- Bunzl, M. (1997) *Real History*. London: Routledge.
- Caillois, R. (2001) *Man, Play and Games*. Urbana & Chicago: University of Illinois Press.
- Calleja, G. (2010) 'Digital games and escapism', *Games and Culture*, 5(4), pp. 335–353.
- Campion, M. C. (1977) 'War Games: World War II in the West', *The History Teacher*, 10(4), pp. 575–585.
- Carr, E. H. (1961) *What is history?* 2nd edn. London: Penguin Books.

- Carvalho, V. M. (2017) 'Videogames as tools for social science history', *Historian*, 79(4), pp. 794–819.
- Cassell & Company (ed.) (1881) *Cassell's book of in-door amusements, card games, and fireside fun. With numerous illustrations*. Cassell & Co. Available at: <https://archive.org/details/cassellsbookofin00cassrich/page/10> (Accessed: 07.02.17).
- Champion, E. (2014) 'History and Cultural Heritage in Virtual Environments', in Grimshaw, M. (ed.) *The Oxford Handbook of Virtuality*. Oxford: Oxford University Press, pp. 269–283.
- Champion, E. (2015) 'Role-playing and Rituals for Cultural Heritage-Oriented Games', in *Proceedings of Digital Games Research Association (DiGRA) 2015 Conference*. Available at: <http://www.digra.org/digital-library/publications/roleplaying-and-rituals-for-cultural-heritage-orientated-games/> (Accessed: 10.01.16).
- Chapman, A. (2012) 'Privileging Form Over Content: Analysing Historical Videogames', *Journal of Digital Humanities*, 1(2). Available at: <http://journalofdigitalhumanities.org/1-2/privileging-form-over-content-by-adam-chapman/> (Accessed: 08.11.15).
- Chapman, A. (2013a) 'Affording History: Civilization and the Ecological Approach', in Kapell, M. W. and Elliott, A. B. R. (eds) *Playing with the Past. Digital Games and the Simulation of History*. London: Bloomsbury, pp. 61–74.
- Chapman, A. (2013b) 'Is Sid Meier's Civilization history?', *Rethinking History*, 17(3), pp. 312–332.
- Chapman, A. (2013c) *The Great Game of History: An Analytical Approach to and Analysis of the Videogame as Historical Form*. PhD Thesis, University of Hull, England.
- Chapman, A. (2016a) *Digital games as history : how video games represent the past and offer access to historical practice*. New York: Routledge.
- Chapman, A. (2016b) 'It' s Hard to Play in the Trenches: World War I in Videogames',

Game Studies, 16(2).

- Chapman, A., Foka, A. and Westin, J. (2016) 'Introduction : What is Historical Game Studies?', *Rethinking History*, 21(3), pp. 358–371.
- Chapman, A. and Linderot, J. (2015) 'Exploring the limits of play – A case study of representations of Nazism in games', in Mortensen, T. E., Linderot, J., and Brown, A. M. (eds) *The Dark Side of Game Play: Controversial Issues in Playful Environments*. London: Routledge.
- Charmaz, K. (2017) 'Constructivist grounded theory', *Journal of Positive Psychology*. Routledge, 12(3), pp. 299–300.
- Clarke, S. and Braun, S. (2017) 'Thematic analysis', *Journal of Positive Psychology*, 12(3), pp. 297–298.
- Clyde, J., Hopkins, H. and Wilkinson, G. (2012) 'Beyond the "Historical" Simulation: Using Theories of History to Inform Scholarly Game Design.', *Loading... The Journal of the Canadian Game Studies Association*, 6(9).
- Copplestone, T. J. (2017) 'But that's not accurate: the differing perceptions of accuracy in cultural-heritage videogames between creators, consumers and critics', *Rethinking History*, 21(3), pp. 415–438.
- Corbeil, P. (1988) 'Rethinking history with simulations', *History Microcomputer Review*, 4(1), pp. 21–35.
- Corbeil, P. (1999) 'Learning from the children: Practical and theoretical reflections on playing and learning', *Simulation and Gaming*, 30(2), pp. 163–180.
- Corbeil, P. (2011) 'History and simulation/gaming: Living with two solitudes', *Simulation and Gaming*, 42(4), pp. 418–422.
- Coulton, P. and Hook, A. (2017) 'Games Design Research Through Game Design Practice', in Lankoski, P. and Holopainen, J. (eds) *Game Design Research. An Introduction to Theory & Practice*. Pittsburgh: ETCPress, pp. 97–115.
- Counsell, C. (2018) 'Taking curriculum seriously', *Impact. Journal of the Chartered*

- College of Teaching*, (4). Available at:
<https://impact.chartered.college/article/taking-curriculum-seriously/> (Accessed: 09.05.16).
- Coyne, L. (2017b) 'Destory History', *Epoiesen: A Journal for Creative Engagement in History and Archaeology*, 2017. Available at:
<https://epoiesen.library.carleton.ca/2017/09/01/destory-history/> (Accessed: 30.03.19).
- Curthoys, A. (2012) 'Crossing Over: academic and popular history', *Australasian Journal of Popular Culture*, 1(1), pp. 7–18.
- Dening, G. (2007) 'Performing cross-culturally', in Jenkins, K., Morgan, S., and Munslow, A. (eds) *Manifestos for History*. Abingdon: Routledge, pp. 98–107.
- Dennis, L. M. (2016) 'Archaeogaming, Ethics, and Participatory Standards', *SAA Archaeological Record*, 16(5). Available at:
http://onlinedigeditions.com/publication/?i=356358&article_id=2638934&view=articleBrowser&ver=html5#%7B%22issue_id%22:356358,%22view%22:%22articleBrowser%22,%22article_id%22:%222638934%22%7D (Accessed: 30.03.19).
- Derrida, J. (1985) 'Letter to a Japanese Friend. (Prof. Izutsu).', in Wood & Bernasconi (ed.) *Derrida and Differance*. Warwick: Parousia Press, pp. 1–5.
- Devlin-Scherer, R. and Sardone, N. B. (2010) 'Digital Simulation Games for Social Studies Classrooms', *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 83(4), pp. 138–144.
- Dormans, J. and Holopainen, J. (2017) 'Investigating game design methods and models', in Lankoski, P. and Holopainen, J. (eds) *Game Design Research. An Introduction to Theory & Practice*. Pittsburgh: ETCPress, pp. 75–95.
- Dow, D. N. (2013) 'Historical Veneers: Anachronism, Simulation, and Art History in Assassin's Creed II', in Kapell, M. W. and Elliott, A. B. R. (eds) *Playing with the Past. Digital Games and the Simulation of History*. London: Bloomsbury, pp. 215–232.

- Druin, A., Bederson, B. B., Hourcade, J. P., Sherman, L., Reville, G., Platner, M. and Weng, S. (2001) 'Designing a Digital Library for Young Children: An intergenerational Partnership', in *Proceedings of the first ACM/IEEE-CS joint conference on Digital libraries*, pp. 398–405. Available at: <https://dl.acm.org/citation.cfm?id=379735> (Accessed: 08.11.15).
- Dunne, A. (2005) *Hertzian tales: Electronic products, aesthetic experience, and critical design*. Cambridge MA: MIT Press.
- Egenfeldt-Nielsen, S. (2007) 'Third Generation Educational Use of Computer Games', *Journal of Educational Multimedia and Hypermedia*, 16, pp. 263–281.
- Elliott, A. B. R. (2011) *Remaking the Middle Ages: The Methods of Cinema and History in Portraying the Medieval World*. London: McFarland.
- Elton, G. (1967) *The Practice of History*. London: Methuen.
- Emanuel, L. and Stanton Fraser, D. (2014) 'Exploring physical and digital identity with a teenage cohort', in *Proceedings of the 2014 conference on Interaction design and children – IDC '14*, pp. 67–76.
- Evans, R. J. (2002) 'Prologue: What is History? – Now', in Cannadine, D. (ed.) *What is History Now?* Houndmills: Palgrave Macmillan, pp. 1–18.
- Ferguson, N. (1999) *Virtual history: alternatives and counterfactuals*. New York: Basic Books.
- Fernández Vara, C. (2015) *Introduction to game analysis*. London & New York: Routledge.
- Findeli, A. (1998) 'A Quest for Credibility: Doctoral Education and Researching Design', in Buchanan, R., Doordan, D., Justice, L., and Margolin, S. (eds) *Doctoral Education in Design*. Proceedings of the Ohio Conference. October 8-11, 1998. Pittsburgh: School of Design, Carnegie Mellon University, pp. 99–116.
- Findeli, A. (2004) 'La recherche-projet: une méthode pour la recherche en design', in *Symposium de recherche sur le design*. Basel.

- Fisher, S. (2011) 'Playing with World War II: A small-scale study of learning in video games', *Loading... The Journal of the Canadian Game Studies Association*, 5(8), pp. 71–89. Available at:
<http://journals.sfu.ca/loading/index.php/loading/article/view/96> (Accessed: 10.01.16).
- Flanagan, M. (2009) *Critical Play. Radical Game Design*. Cambridge, MA & London: MIT Press.
- Fogu, C. (2009) 'Digitalizing Historical Consciousness', *History and Theory*, 48(2), pp. 103–121.
- Forlizzi, J., DiSalvo, C., Bardzell, J., Koskinen, I. and Wensveen, S. (2011) 'Quality Control: A Panel on the Critique and Criticism of Design Research', in *CHI '11 Extended Abstracts on Human Factors in Computing Systems*, pp. 823–826
- Forlizzi, J., Stolterman, E. and Zimmerman, J. (2009) 'From Design Research to Theory: Evidence of a Maturing Field', in *Proceedings of IASDR*, pp. 2889–2898.
- Frasca, G. (1999) 'Ludology Meets Narratology: Similitude and differences between (video) games and narrative', *Parnasso*, 3. Available at:
<https://ludology.typepad.com/weblog/articles/ludology.htm> (Accessed: 08.11.15).
- Frayling, C. (1993) 'Research in art and design', *Royal College of Art Research Papers series*, 1(1).
- Fullerton, T. (2008a) 'Documentary Games: Putting the Player in the Path of History', in Whalen, Z. and Taylor, L. N. (eds) *Playing the Past: Nostalgia in Videogames*. Nashville: Vanderbilt University Press, pp. 215–238.
- Fullerton, T. (2008b) *Game Design Workshop. A Playcentric Approach to Creating Innovative Games*. Oxford: Morgan Kaufmann Publishers.
- Galloway, A. R. (2006) *Gaming. Essays on Algorithmic Culture*. Minneapolis & London: University of Minnesota Press.
- Garfield, R. (1987) 'Using simulations in the classroom: Teaching world civilizations through the "machine"', *History Microcomputer Review*, 3(1), pp. 7–13.

- Gaver, W. (2012) 'What Should We Expect From Research Through Design?', in CHI '12: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, pp. 937–946.
- Gavin, M. (2014) 'Agent-Based Modeling and Historical Simulation', DHQ : Digital Humanities Quarterly, 8(4). Available at:
<http://www.digitalhumanities.org/dhq/vol/8/4/000195/000195.html> (Accessed: 30.03.19).
- Gee, J. P. (2015) 'Discourse Analysis of Games', in Jones, R. H., Chik, A., and Hafner, C. A. (eds) Discourse and Digital Practices. Doing Discourse Analysis in the Digital Age. Oxon and New York: Routledge, pp. 18–27.
- Genette, G. (1983) Narrative Discourse. An Essay in Method. Translated by J. E. Lewin. New York: Cornell University Press.
- Gessler, N. (1998) 'Skeuomorphs and cultural algorithms', in Porto, S. W., Saravanan, N., Waagen, D., and Eiben, A. E. (eds) Evolutionary Programming 7. EP 1998. Lecture Notes in Computer Science, vol 1447. Berlin: Springer, pp. 229–238.
- Ghys, T. (2012) 'Technology Trees: Freedom and Determinism in Historical Strategy Games', Game Studies, 12(1). Available at:
http://gamestudies.org/1201/articles/tuur_ghys (Accessed: 08.11.15).
- Gibson, J. J. (1986) The Ecological Approach to Visual Perception. Classic Edition. New York & London: Psychology Press.
- Giddens, A. (1964) 'Notes on the Concepts of Play and Leisure', Sociological Review., 12(1), pp. 73–89.
- Gish, H. (2010) 'Playing the Second World War: Call of Duty and the Telling of History', Eludamos. Journal for Computer Game Culture, 4(2), pp. 167–180. Available at:
<http://eludamos.org/index.php/eludamos/article/view/vol4no2-4/183> (Accessed: 08.11.15).
- Pierrot le Fou*. (1965). Film. Directed by Jean-Luc Godard. France: Films Georges de Beauregard

- Godin, D. and Zahedi, M. (2014) 'Aspects of Research through Design : A Literature Review', in *Proceedings of DRS 2014: Design's Big Debates*, pp. 1667–1680.
- Goffman, E. (1986) *Frame Analysis. An Essay on the Organization of Experience*. Boston: Northeastern University Press.
- Good, J. and Robertson, J. (2006) 'CARSS: A Framework for Learner-Centred Design with Children', *International Journal of Artificial Intelligence in Education*, 16, pp. 381–413.
- Gould, C. and Bysshe, S. (1975) 'The Use of Games in the Teaching of History', *Teaching History*, 4(14), pp. 132–137.
- Grace, L. (2010) 'Critical Gameplay: Design Techniques and Case Studies', in Gibson, D. and Schrier, K. (eds) *Designing games for ethics: Models, techniques and Frameworks* *Information Sciences Reference*. Hershey: IGI Global, pp. 128–141.
- Graham, S. (2006) 'Networks, agent-based models and the Antonine Itineraries: Implications for Roman archaeology', *Journal of Mediterranean Archaeology*, 19(1), pp. 45–64.
- Graham, S. and Steiner, J. (2007) 'Travellersim: Growing Settlement Structures and Territories with Agent-Based Modelling', in Clark, J. T. and Hagemeister, E. M. (eds) *Digital Discovery. Exploring New Frontiers in Human Heritage. CAA2006. Computer Applications and Quantitative Methods in Archaeology. Proceedings of the 34th Conference*, Budapest: *Archaeolingua*, pp. 49–59. Available at: <https://electricarchaeology.ca/2009/10/16/travellersim-growing-settlement-structures-and-territories-with-agent-based-modeling-full-text/> (Accessed: 30.03.19).
- Gray, D. E. (2004) *Doing Research in the Real World*. London: SAGE.
- de Groot, J. (2009) *Consuming history: historians and heritage in contemporary popular culture*. London & New York: Routledge.
- Gualeni, S. (2015) *Virtual Worlds as Philosophical Tools: How to Philosophize with a Digital Hammer*. Hampshire & New York: Palgrave Macmillan.

- Gualeni, S. (2017b) Something Something Soup Something - How? Available at: <http://soup.gua-le-ni.com/how/> (Accessed: 14.01.19).
- Guardiola, E. and Natkin, S. (2017) 'Game design mise-en-scène practice Intention and means in JEU SERAI', in Lankoski, P. and Holopainen, J. (eds) *Game Design Research. An Introduction to Theory & Practice*. Pittsburgh: ETCPress, pp. 117–134.
- Gunn, S. (2006) *History and cultural theory*. New York: Pearson Longman.
- Günzel, S. (2012) 'The Mediality of Computer Games', in Fromme, J. and Unger, A. (eds) *Computer Games and New Media Cultures. a Handbook of Digital Game Studies*. Dordrecht: Springer, pp. 31–46.
- Hall, S., Hobson, D., Lowe, A. and Willis, P. (eds) (2005) *Culture, Media, Language. Working Papers in Cultural Studies, 1972–79*. London: Routledge.
- Hart, J. A. (1985) 'Using Microcomputers Simulations in the Classroom: Examples from Undergraduate and Faculty Computer Literacy Courses', *History Microcomputer Review*, 1(2), pp. 7–18.
- Herbert Mead, G. (1982) *The Philosophy of the Present*. Edited by A. E. Murphy. London: The Open Court Company.
- Hexter, J. H. (1998) 'The rhetoric of history', in Fay, B., Pomper, P., and Vann, R. T. (eds) *History and Theory: Contemporary Readings*. Oxford: Basil Blackwell, pp. 59–68.
- Himmelfarb, G. (1994) *On Looking into the Abyss: Untimely Thoughts on Culture and Society*. New York: Knopf.
- Hiriart, J. (2016) 'Surviving the Middle Ages: Notes on Crafting Gameplay for a Digital Historical Game', *The SAA Archaeological Record*, 16(5).
- Hiriart, J. (2017) 'Designing and Using Game Environments as Historical Learning Contexts', in *Proceedings of Historia Ludens. A one day conference on history and gaming*.
- Historical Games - IGDB (2019). Available at:

<https://www.igdb.com/themes/historical> (Accessed: 30.03.19).

- Hitchcock, G. and Hughes, D. (1995) *Research and the Teacher: A Qualitative Introduction to School-based Research*. 2nd edn. London: Routledge Falmer.
- Houghton, R. (2016) 'Where did you learn that? The self-perceived educational impact of historical computer games on undergraduates', *gamevironments*, 5, pp. 8–45.
- Houghton, R. (2018) 'World, Structure and Play: A Framework for Games as Historical Research Outputs, Tools, and Processes', *Práticas da História*, 7, pp. 11–43.
- Huizinga, J. (1949) *Homo Ludens: A Study of the Play Element in Culture*. London: Routledge & Kegan Paul.
- Jenkins, K. (2005) *Why History? Ethics and postmodernity*. London & New York: Routledge.
- Jiménez Alcázar, J. (2011) 'Cruzadas, cruzados y videojuegos', *Anales de la Universidad de Alicante. Historia Medieval.*, 17, pp. 363–407.
- Jonas, W. (2007) 'Design Research and its Meaning to the Methodological Development of the Discipline', in Michel, R. (ed.) *Design research now. Essays and Selected Projects*. Basel: Birkhäuser, pp. 187–206.
- Juul, J. (2001) 'Games Telling stories? A brief note on games and narratives', *The International Journal of Computer Game Research*, 1(1).
- Juul, J. (2005) *Half-Real. Video Games between Real Rules and Fictional Worlds*. London: The MIT Press.
- Kagan, S. and Kagan, M. (2009) *Kagan Cooperative Learning*. San Clemente, CA: Kagan Publishing.
- Kansteiner, W. (2007) 'Alternate worlds and invented communities. History and historical consciousness in the age of interactive media', in Jenkins, K., Morgan, S., and Munslow, A. (eds) *Manifestos for History*. Abingdon: Routledge, pp. 131–148.
- Kapell, M. W. and Elliott, A. B. R. (eds) (2013) *Playing with the Past. Digital Games and the Simulation of History*. London: Bloomsbury.

- Kee, K. (2011) 'Computerized History Games: Narrative Options', *Simulation & Gaming*, 42(4), pp. 423–440.
- Kee, K. and Bachynski, J. (2009) 'Outbreak: Lessons Learned from Developing a "History Game"', *Loading... The Journal of the Canadian Game Studies Association*, 3(4).
- Kee, K., Graham, S., Dunae, P., Lutz, J., Large, A., Blondeau, M. and Clare, M. (2009) 'Towards a Theory of Good History Through Gaming', *The Canadian Historical Review*, 90(2), pp. 303–329.
- Kempshall, C. (2015) *The First World War in Computer Games*. London: Palgrave Macmillan.
- Klevjer, R. (2002) 'In Defense of Cutscenes', in Mäyrä, F. (ed.) *Computer Games and Digital Cultures Conference Proceedings*. Tampere: Tampere University Press, pp. 191–202. Available at:
<http://www.digra.org/wp-content/uploads/digital-library/05164.50328.pdf>
 (Accessed: 07.02.17).
- Koski, J. (2017) 'Reflections of history: representations of the Second World War in *Valkyria Chronicles*', *Rethinking History*, 21(3), pp. 396–414.
- LaCapra, D. (2000) *History and reading: Tocqueville, Foucault, French studies*. Toronto: University of Toronto Press.
- Landsberg, A. (2009) 'Memory, Empathy, and the Politics of Identification', *International Journal of Politics, Culture, and Society*, 22(2), pp. 221–229.
- Lankoski, P. and Holopainen, J. (2017) 'Game Design Research. An Overview', in Lankoski, P. and Holopainen, J. (eds) *Game Design Research. An Introduction to Theory & Practice*. Pittsburgh: ETCPress, pp. 1–13.
- Leitch, V. B. (ed.) (2001) *The Norton Anthology of Theory and Criticism*. London: W. W. Norton & Company.
- Lelièvre, E. (2016) 'OFabulis and Versailles 1685: a comparative study of the creation process behind video games on historical monuments', in *Proceedings of 1st*

- International Joint Conference of DiGRA and FDG 2016. Available at:
<http://www.digra.org/digital-library/publications/ofabulis-and-versailles-1685-a-comparative-study-of-the-creation-process-behind-video-games-on-historical-monuments/> (Accessed: 07.04.18).
- Linderoth, J. (2012) 'Why gamers don't learn more: An ecological approach to games as learning environments', *Journal of Gaming & Virtual Worlds*. Intellect, 4(1), pp. 45–62.
- Linderoth, J. (2013) 'Beyond the Digital Divide : An Ecological Approach to Game-Play', *Transactions of the Digital Game Research Association*, 1(1), pp. 1–17.
- Linderoth, J. (2015) 'Creating stories for a composite form: Video game design as Frame Orchestration', *Journal of Gaming & Virtual Worlds*, 7(3), pp. 279–298.
- Linderoth, J. and Bennerstedt, U. (2007) 'This is not a Door: an Ecological approach to Computer Games', *Proceedings of Digital Games Research Association (DiGRA) 2007 Conference*, pp. 600–609. Available at:
<http://www.digra.org/dl/db/07312.51011.pdf> (Accessed: 08.02.17).
- Lindley, J. and Coulton, P. (2015) 'Back to the Future: 10 Years of Design Fiction', in *Proceedings of the 2015 British HCI conference*, pp. 210–211.
- Loidl, H.-W. and Louchart, S. (2016) 'The Jomini Engine: A historical MMORPG framework', in *Proceedings of 1st International Joint Conference of DiGRA and FDG 2016*. Available at:
<https://researchportal.hw.ac.uk/en/publications/the-jomini-engine-a-historical-mmorpg-framework> (Accessed: 07.04.18).
- Lopes, D. M. (2010) *A philosophy of computer art*. London & New York: Routledge.
- Lowe, D. (2009) 'Playing with Antiquity: Videogame Receptions of the Classical World', in Lowe, D. and Shahabudin, K. (eds) *Classics For All: Reworking Antiquity in Mass Culture*. Newcastle: Cambridge Scholars Publishing, pp. 64–90.
- Lowenthal, D. (2007) 'The past of the future: from the foreign to the undiscovered country', in Jenkins, K., Morgan, S., and Munslow, A. (eds) *Manifestos for History*.

Abingdon: Routledge, pp. 205–219.

Lyotard, J.-F. (1984) *The Postmodern Condition: A Report on Knowledge*. Translated by G. Bennington and B. Massumi. Minneapolis: University of Minnesota Press.

MacCallum-Stewart, E. (2007) 'Controversies: Historicising the Computer Game', in *Proceedings of Digital Games Research Association (DiGRA) 2007 Conference*. Available at: <http://www.digra.org/digital-library/publications/controversies-historicising-the-computer-game/> (Accessed: 08.11.15).

Machor, J. L. and Goldstein, P. (eds) (2001) *Reception Study: From Literary Theory to Cultural Studies*. London: Routledge.

Mandler, P. (2004) 'The Problem with Cultural History', *Cultural and Social History*, 1(1), pp. 94–117.

Manovich, L. (2002) *The language of new media*. Cambridge MA: The MIT Press.

Marcotte, J. and Khaled, R. (2017) 'Critical Practices in Game Design', in Lankoski, P. and Holopainen, J. (eds) *Game Design Research. An Introduction to Theory & Practice*. Pittsburgh: ETCPress, pp. 199–218.

Marwick, A. (1995) 'Two approaches to historical study: the metaphysical (including postmodernism) and the historical', *Journal of Contemporary History*, 30(1), pp. 5–36.

Marwick, A. (2001) *The New Nature of History: Knowledge, Evidence, Language*. Basingstoke: Palgrave Macmillan.

Matei, Ștefania (2015) 'Digital cultures of commemoration: Learning and unlearning history through video games', in *Proceedings 20th International Conference on Control Systems and Computer Science*, pp. 777–782.

McCall, J. (2011) *Gaming the past : using video games to teach secondary history*. New York: Routledge.

McCall, J. (2012) 'Navigating the Problem Space: The Medium of Simulation Games in

- the Teaching of History', *The History Teacher*, 46(1), pp. 9–28.
- McCall, J. (2014) 'Simulation Games and the Study of the Past: Classroom guidelines', in Kee, K. (ed.) *Pastplay: Teaching and learning history with technology*. Ann Arbor: University of Michigan, pp. 228–253.
- McCall, J. (2016) 'Teaching History With Digital Historical Games: An Introduction to the Field and Best Practices', *Simulation and Gaming*, 47(4), pp. 517–542.
- McCall, J. (2017) 'Path of Honors: Towards a Model for Interactive History texts with Twine', *Epoiesen: A Journal for Creative Engagement in History and Archaeology*. Available at:
<https://epoiesen.library.carleton.ca/2018/01/21/path-of-honors/index.html>
 (Accessed: 30.03.19).
- McCarthy, M. P. (1973) 'Teaching Urban History with Games : A Review Essay', *The History Teacher*, 7(1), pp. 62–66.
- McClymer, J. F. (1987) 'HMR Forum: Games, simulations, and teaching-round 2', *History Microcomputer Review*, 3(1), pp. 24–30.
- McLuhan, M. (1994) *Understanding Media. The Extensions of Man, Understanding Media: The extensions of Man*. Cambridge & London: MIT Press.
- McMichael, A. (2007) 'PC Games and the Teaching of History', *The History Teacher*, 40(2), pp. 203–218.
- Metzger, S. A. and Paxton, R. J. (2016) 'Gaming History: A Framework for What Video Games Teach About the Past', *Theory and Research in Social Education*, 44(4), pp. 532–564.
- Mir, R. and Owens, T. (2012) 'Guns, Germs, and Steel: Cultural Exchange in Sid Meier's Colonization', *Play The Past*. Available at:
<http://www.playthepast.org/?p=2531> (Accessed: 08.11.15).
- Mir, R. and Owens, T. (2013) 'Modeling Indigenous Peoples: Unpacking Ideology in Sid Meier's Colonization', in Kapell, M. W. and Elliott, A. B. R. (eds) *Playing with the Past. Digital Games and the Simulation of History*. London: Bloomsbury, pp. 91–

106.

- Mol, A. A. A., Ariese-Vandemeulebroucke, C. E., Boom, K. H. J. and Politopoulos, A. (eds) (2017) *The Interactive Past. Archaeology, Heritage & Video Games*. Leiden: Sidestone Press.
- Morley, N. (2019a) 'The Melian Dilemma: Remaking Thucydides', *Epoiesen: A Journal for Creative Engagement in History and Archaeology*, 2019. Available at: <https://epoiesen.library.carleton.ca/2019/02/06/the-melian-dilemma-remaking-thucydides/> (Accessed: 30.03.19).
- Mukherjee, S. (2016) 'Playing Subaltern: Video Games and Postcolonialism', *Games and Culture*, pp. 1–17.
- Muller, M. J. (2008) 'Participatory Design: The third space in HCI', in Sears, A. and Jacko, J. A. (eds) *The Human-Computer Interaction Handbook*. New York & London: Lawrence Erlbaum Associates, pp. 1061–1081.
- Munslow, A. (1997) *Deconstructing History*. 2nd edn. London & New York: Routledge.
- Munslow, A. (2006) *The Routledge Companion To Historical Studies*. London & New York: Routledge.
- Munslow, A. (2007) *Narrative and History*. Basingstoke: Palgrave Macmillan.
- Munslow, A. (2010) *The future of history*. New York: Palgrave Macmillan.
- Munslow, A. (2012) *A History of History*. London & New York: Routledge.
- Muriel, D. (2016) *The Secret of Monkey Island como artefacto postmoderno*, Presura. Available at: <http://www.presura.es/2016/10/31/the-secret-of-monkey-island-artefacto-postmoderno/> (Accessed: 15.07.17).
- Murray, J. H. (1997) *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. New York: The Free Press.
- Nowell, L. S., Norris, J. M., White, D. E. and Moules, N. J. (2017) 'Thematic Analysis: Striving to Meet the Trustworthiness Criteria', *International Journal of Qualitative*

Methods, 16(1).

O’Leary, Z. (2017) *The Essential Guide to Doing Your Research Project*. 3rd edn. London: SAGE.

Paz, O. (1978) *Marcel Duchamp*. New York: Viking Press.

Piper, H. and Simons, H. (2005) ‘Ethical Responsibility in Social Research’, in Lewin, C. and Somekh, B. (eds) *Research Methods in the Social Sciences*. London: SAGE, pp. 56–64.

Planells de la Maza, A. J. (2017) *Possible Worlds in Video Games From Classic Narrative to Meaningful Actions*. Pittsburgh: ETCPress.

Pötzsch, H. (2017) ‘Selective Realism: Filtering Experiences of War and Violence in First- and Third-Person Shooters’, *Games and Culture*, 12(2), pp. 156–178.

Pötzsch, H. and Šisler, S. (2019) ‘Playing Cultural Memory: Framing History in Call of Duty: Black Ops and Czechoslovakia 38-89: Assassination’, *Games and Culture*, 14(1), pp. 3–25.

Power, M. (2007) ‘Digitized virtuosity: video war games and post-9/11 cyber-deterrence’, *Security Dialogue*, 38(2), pp. 271–288.

Quinten, N., Malliet, S. and Coninx, K. (2017) ‘Gaps of uncertainty. A case for experimentation in serious game design frameworks’, in Lankoski, P. and Holopainen, J. (eds) *Game Design Research. An Introduction to Theory & Practice*. Pittsburgh: ETCPress, pp. 135–156.

Reinhard, A. (2015) ‘Excavating Atari: Where the Media was the Archaeology’, *Journal of Contemporary Archaeology*, 2(1), pp. 86–93.

Ritzer, G. (ed.) (2007) *The Blackwell Encyclopedia of Sociology*. Oxford: Blackwell.

Robertson, T. and Simonsen, J. (2013) ‘Participatory Design. An introduction’, in Simonsen, J. and Robertson, T. (eds) *Routledge International Handbook of Participatory Design*. London & New York: Routledge, pp. 1–18.

Rokeby, D. (1995) ‘Transforming mirrors: subjectivity and control in interactive media’,

- in Penny, S. (ed.) *Critical issues in electronic media*. Albany: SUNY Press, pp. 133–158.
- Roman, B. (2013) 'An Agent-based Model for the Humanities', *DHQ: Digital Humanities Quarterly*, 7(1). Available at:
<http://www.digitalhumanities.org/dhq/vol/7/1/000142/000142.html> (Accessed: 30.03.19).
- Rosenstone, R. A. (1995) *Visions of the Past: The Challenge of Film to Our Idea of History*. London: Harvard University Press.
- Rosenstone, R. A. (2012) *History on film/film on history*. 2nd edn. New York: Routledge.
- Rubio-Campillo, 10., Cela, J. M. and Cardona, F. 10. H. (2013) 'The Development of New Infantry Tactics During the Early Eighteenth Century: A Computer Simulation Approach to Modern Military History', *Journal of Simulation*, 7(3), pp. 170–182.
- Ruffino, P. (2012) 'A Theory of Non-existent Video Games: Semiotic and Video Game Theory', in Fromme, J. and Unger, A. (eds) *Computer Games and New Media Cultures: A Handbook of Digital Games Studies*. Dordrecht: Springer, pp. 107–124.
- Ryan, F., Coughlan, M. and Cronin, P. (2007) 'Step-by-step Guide to Critiquing Research. Part 2: Qualitative Research', *British Journal of Nursing*, 16(12), pp. 738–744.
- Ryan, M.-L. (1999) *Cyberspace Textuality. Computer Technology and Literary Theory*. Bloomington & Indianapolis: Indiana University Press.
- Ryan, M.-L. (2001) *Narrative as virtual reality. Immersion and Interactivity in Literature and Electronic Media*. Baltimore and London: Johns Hopkins University Press.
- Ryan, M.-L. (2006) *Avatars of Story*. Minneapolis & London: University of Minnesota Press.
- Ryan, M.-L., Emerson, L. and Robertson, B. J. (eds) (2014) *The Johns Hopkins Guide to Digital Media*. Baltimore: Johns Hopkins University Press.
- Sachs, P. (1997) *Pick a Party. The big book of party themes and occasions*. Minnetonka:

Meadowbrook Press.

- Salvati, A. J. and Bullinger, J. M. (2013) 'Selective Authenticity and the Playable Past', in Kapell, M. W. and Elliott, A. B. R. (eds) *Playing with the Past. Digital Games and the Simulation of History*. London: Bloomsbury, pp. 153–167.
- Samuel, R. (2012) *Theatres of Memory. Past and Present in Contemporary Culture*. London & New York: Verso.
- Sanders, E. B.-N. (2002) 'From user-centered to participatory design approaches', in Frascara, J. (ed.) *Design and the Social Sciences. Making Connections*. London & New York: Taylor & Francis, pp. 1–8.
- Sanders, E. B.-N., Brandt, E. and Binder, T. (2010) 'A framework for organizing the tools and techniques of participatory design', in *Proceedings of the 11th Biennial Participatory Design Conference*.
- Sanders, E. B.-N. and Stappers, P. J. (2014) 'Probes, toolkits and prototypes: three approaches to making in codesigning', *Codesign-International Journal of Cocreation in Design and the Arts*, 10(1), pp. 5–14.
- Sargent, J. E. (1985) 'History Microcomputer Games: Update 2', *History Microcomputer Review*, 1(2), pp. 44–52.
- Sargent, J. E. and Hueston, S. P. (1987) 'Simulating History: Programming The American Revolution', *History Microcomputer Review*, 3(2), pp. 17–22.
- Schell, J. (2015) *The Art of Game Design. A book of Lenses*. 2nd edn. Boca Raton: CRC Press.
- Schick, J. B. (1985) 'Microcomputer Simulations in the Classroom', *History Microcomputer Review*, 1(1), pp. 3–6.
- Schick, J. B. (1988) 'Historical choices', *History Microcomputer Review*, 4(1), pp. 15–20.
- Schut, K. (2007) 'Strategic Simulations and Our Past. The Bias of Computer Games in the Presentation of History', *Games and Culture*, 2(3), pp. 213–235.

- Seixas, P. (2000) 'Schweigen! die kinder! Or, does postmodern history have a place in the schools?', in Stearns, P. N., Seixas, P., and Wineburg, S. S. (eds) *Knowing, teaching and learning history: National and international perspectives*. New York: New York University Press, pp. 20–39.
- Shaffer, D. W., Squire, K. D., Halverson, R. and Gee, J. P. (2005) 'Video Games and the Future of Learning', *Phi Delta Kappan*, 87(2), pp. 105–111. Available at: www.wcer.wisc.edu/publications/workingPapers/Working_Paper_No_2005_4.pdf (Accessed: 08.11.15).
- Shaw, A. (2016) 'The Tyranny of Realism: Historical accuracy and politics of representation in Assassin's Creed III', *Loading... The Journal of the Canadian Game Studies Association*, 9(14), pp. 4–24.
- Sicart, M. (2005) 'The Ethics of Computer Game Design', in *Proceedings of Digital Games Research Association (DiGRA) 2005 Conference*. Available at: <http://digra.org:8080/Plone/dl/db/06276.55524.pdf> (Accessed: 08.11.15).
- Sicart, M. (2011) 'Against Procedurality', *Game Studies*, 11(3). Available at: http://gamestudies.org/1103/articles/sicart_ap (Accessed: 08.11.15).
- Šisler, V. (2016) 'Contested memories of war in czechoslovakia 38-89: Assassination: Designing a serious game on contemporary history', *Game Studies*, 16(2).
- Šisler, V., Brom, C., Cuhra, J., Činátl, K. and Gemrot, J. (2012) 'Stories from the History of Czechoslovakia, A serious game for teaching history of the Czech lands in the 20th century - Notes on design concepts and design process', in *International Conference on Entertainment Computing*, pp. 67–74.
- Šisler, V., Selmbacherová, T., Pinkas, J. and Brom, C. (2014) 'Teaching contemporary history to high school students: The augmented learning environment of Czechoslovakia 38-89', *Masaryk University Journal of Law and Technology*, 8(1), pp. 99–122.
- Slatta, R. W. (1985) 'Teaching Historical Research Methods with Data Base Software', *History Microcomputer Review*, 1(2).

- Sloan, R. J. S. (2015) 'Videogames as Remediated Memories: Commodified Nostalgia and Hyperreality in Far Cry 3: Blood Dragon and Gone Home', *Games and Culture*, 10(6), pp. 525–550.
- Spiegelman, A. (1991) *Maus*. Pantheon Books.
- Spinuzzi, C. (2005) 'The Methodology of Participatory Design', *Technical Communication*, 52(2), pp. 163–174.
- Spring, D. (2014) 'Gaming history: computer and video games as historical scholarship', *Rethinking History*, 19(2), pp. 207–221.
- Squire, K. D. (2004) *Replaying History: Learning World History Through Playing Civilization III*. PhD Thesis, Indiana University, Bloomington.
- Squire, K. D. and Barab, S. (2004) 'Replaying history: engaging urban underserved students in learning world history through computer simulation games', in *Proceedings of the 6th international conference on Learning sciences*, pp. 505–512. Available at:
<https://dl.acm.org/citation.cfm?id=1149188> (Accessed: 08.11.15).
- Stevenson, E. G. (2015) 'Metal Gear Solid 2: A postmodern deconstruction of 21st century culture', *One of those film blogs*. Available at:
<https://oneofthem1s.wordpress.com/2015/12/08/metal-gear-solid-2-a-postmodern-deconstruction-of-21st-century-culture/> (Accessed: 15.07.17).
- Stolterman, E. (2008) 'The Nature of Design Practice and Implications for Interaction Design Research', *International Journal of Design*, 2(1), pp. 55–65.
- Stouraitis, E. (2016) 'Fostering Creativity in Sixth Grade History Education Through a Story-Telling Digital Game: An Empirical Study', *International Journal of Historical Learning Teaching and Research*, 13(2), pp. 138–149.
- Stringer, E. T. (2007) *Action Research*. Third Edition. London: SAGE.
- Sutton-Smith, B. (2001) *The Ambiguity of Play*. Cambridge & London: Harvard University Press.

- Tavinor, G. (2008) 'Definition of Videogames', *Contemporary Aesthetics*, 7. Available at:
<https://www.contempaesthetics.org/newvolume/pages/article.php?articleID=492>
 (Accessed: 15.01.17).
- Taylor, T. (1994) 'Using the simulation "Civilization" in a world history course', *History Microcomputer Review*, (10), pp. 11–16.
- Taylor, T. (2003) 'Historical Simulations and the Future of the Historical Narrative', *Journal of the Association for History and Computing*. Ann Arbor MI Scholarly Publishing Office University of Michigan Library, 6(2). Available at:
<http://hdl.handle.net/2027/spo.3310410.0006.203> (Accessed: 08.11.15).
- Todorov, T. (1971) 'The 2 Principles of Narrative', *Diacritics*, 1(1), pp. 37–44.
- University of Sussex (2015) Department of Education. Ethics. Available at:
<http://www.sussex.ac.uk/education/research/ethics> (Accessed: 29.04.16).
- University of Sussex (2016) BA in History. Available at:
<http://www.sussex.ac.uk/study/undergraduate/2016/1662/32935#course> (Accessed: 04.05.16).
- Uricchio, W. (2005) 'Simulation, History and Computer Games', in Goldstein, J. and Raessens, J. (eds) *Handbook of Computer Game Studies*. Cambridge, MA: MIT Press, pp. 327–338.
- Velázquez, D. R. de S. y (1656) *Las Meninas*, Oil on Canvas, 318 x 276 cm, Prado Museum, Madrid.
- Waern, A. and Back, J. (2017) 'Experimental game design', in Lankoski, P. and Holopainen, J. (eds) *Game Design Research. An Introduction to Theory & Practice*. Pittsburgh: ETCPress, pp. 157–168.
- Wainwright, A. M. (2014) 'Teaching Historical Theory through Video Games', *The History Teacher*, 47(4), pp. 579–612.
- Walsh, B. (2013) 'Signature pedagogies, assumptions and assassins: ICT and motivation in the history classroom', in Haydn, T. (ed.) *Using New Technologies to Enhance*

- Teaching and Learning in History. New York: Routledge, pp. 131–142.
- Watson, W. R., Mong, C. J. and Harris, C. A. (2011) 'A case study of the in-class use of a video game for teaching high school history', *Computers and Education*, 56(2), pp. 466–474.
- Webber, N. (2017) 'EVE Online's War Correspondents: Player Journalism as History', in Swalwell, M., Ndalianis, A., and Stuckey, H. (eds) *Fans and Videogames: History, Fandom, Archives*. London & New York: Routledge, pp. 93–110.
- Weir, K. and Baranowski, M. (2011) 'Simulating history to understand international politics', *Simulation and Gaming*, 42(4), pp. 441–461.
- Werkman, P. E. (1987) 'Computer-Assisted Teaching and Learning in History in Great Britain and the Netherlands: Some Impressions', *History Microcomputer Review*, 2(2), pp. 9–24.
- Wertsch, J. 5. (2004) *Voices of Collective Remembering*. Cambridge: Cambridge University Press.
- Wilkinson, T., Gibson, M., Christenson, J., Widell, M., Woods, C., Kouchoukos, N., Simunich, K., Altaweel, M., Hritz, C., Ur, J., Paulette, T., Lauinger, J. and Woods, C. (2007) 'Modeling Settlement Systems in a Dynamic Environment: Case Studies from Mesopotamia', in Kohler, T. A. and van der Leeuw, S. (eds) *The Model-Based Archaeology of Socionatural Systems*. Santa Fe: School of American Research, pp. 175–208.
- Windschuttle, K. (1995) *The Killing of History: How Literary Critics and Social Theorists are Murdering Our Past*. New York: The Free Press.
- Wolf, M. J. P. (ed.) (2001) *The Medium of the Video Game*. Austin: University of Texas Press.
- Wurzer, G., Kowarik, K. and Reschreiter, H. (eds) (2015) *Agent-based Modeling and Simulation in Archaeology*. New York: Springer.
- Zagal, J. P. and Bruckman, A. (2008) 'Novices, Gamers, and Scholars: Exploring the challenges of teaching about games.', *The International Journal of Computer Game*

Research, 8(2). Available at: http://gamestudies.org/0802/articles/zagal_bruckman (Accessed: 15.01.17).

Zentralinstitut der Humboldt-Universität zu Berlin (2018) *Analogspeicher II. Auralisierung archäologischer Räume*. Available at: https://www.interdisciplinary-laboratory.hu-berlin.de/de/content/analogspeicher-ii-auralisierung-archaologischer-raume/?content_type=projekt (Accessed: 30.03.19).

Zimmerman, E. (2004) 'Interactivity, Narrative, Play, and Game: Four Naughty concepts in need of discipline', in Wardip-Fruin, N. and Harrigan, P. (eds) *First Person: New Media as story, Performance, and game*. Cambridge MA: MIT Press, pp. 154–164.

Zimmerman, J. and Forlizzi, J. (2008) 'The Role of Design Artifacts in Design Theory Construction', *Artifact*, 2(1), pp. 41–45.

Zimmerman, J., Forlizzi, J. and Evenson, S. (2007) 'Research through design as a method for interaction design research in HCI', in *SIGCHI conference on Human factors in computing systems*, pp. 493–502.

Zimmerman, J., Stolterman, E. and Forlizzi, J. (2010) 'An analysis and critique of Research through Design: towards a formalization of a research approach', in *Proceedings of the Designing Interactive Systems Conference 2010*, pp. 310–319.

9.2 Ludography

11 bit studios (2014) 'This War of Mine'. Video game. PC. 11 bit studios.

2K Boston (2007) 'Bioshock'. Video game. PC. 2k Games.

Bethesda Game Studios (2011) 'The Elder Scrolls V: Skyrim'. Video game. PC. Bethesda Softworks.

Big Blue Box Studios (2004) 'Fable'. Video game. PC. Microsoft.

Blakely, S. (2016) 'Sailing with the gods'. Video Game. PC. Available at: <https://scholarblogs.emory.edu/samothraciannetworks/the-game/play-the-game/> (Accessed: 30.03.19).

- Brathwaite, B. (2009) 'Train'. Board Game. Brenda Brathwaite.
- Brinson, P. and ValaNejad, K. (2011) 'The Cat and the Coup'. Video game. PC.
- Charles University and Czech Academy of Sciences (2015) 'Czechoslovakia 38-89: Assassination'. Video game. PC. Czech Academy of Sciences.
- Charles University and Czech Academy of Sciences (2017) 'Attentat 1942'. Video game. PC. Czech Academy of Sciences.
- Copplestone, T. (2016) 'The Past is a Kaleidoscope'. Video game. PC. Available at: <https://gamingarchaeo.itch.io/the-past-is-a-kali> (Accessed: 12.04.17).
- Core Design (1996) 'Tomb Raider'. Video game. PC. Eidos Interactive.
- Coyne, L. (2017a) 'Destory History'. Video game. PC. Available at: <http://philome.la/lucaswcoyne/destory-history-v10> (Accessed: 30.03.19).
- Cruz Martínez, M. A. (2015) 'The Dictator's Visit'. Video game. PC. Available at: <https://manuacruz.itch.io/the-dictators-visit> (Accessed: 30.07.19).
- Cruz Martínez, M. A. (2016) 'Depression'. Video game. PC. Available at: <https://manuacruz.itch.io/depression> (Accessed: 30.07.19).
- Cruz Martínez, M. A. (2019) 'Time Historians'. Video game. PC. Available at: <https://manuacruz.itch.io/time-historians> (Accessed: 30.07.19).
- Cruz Martínez, M. A. and Martínez Martínez, A. (2017) 'Printed Bones'. Video game. PC. Available at: <https://manuacruz.itch.io/printed-bones> (Accessed: 30.07.19).
- Dillon, J., Dranove, D., Halpern, E., Hantoot, B., Munk, D., Pinsof, D., Temkin, M. and Weinstein, E. (2011) 'Cards Against Humanity'. Card Game. Ad Magic Inc.
- DreamWorks Interactive (1999) 'Medal of Honor'. Video game. PC. Electronic Arts.
- Dyment, D. (1968) 'Hamurabi'. Video game. PC.
- EA DICE (2016) 'Battlefield 1'. Video game. PC. Electronic Arts.
- Ensemble Studios (1999) 'Age of Empires II: The Age of Kings'. Video game. PC.

Microsoft.

Frogwares (2009) 'Sherlock Holmes versus Jack the Ripper'. Video game. PC. Focus Home Interactive.

Galactic Cafe (2013) 'The Stanley Parable'. Video game. PC. Galactic Cafe.

Gualeni, S. (2011) 'Gua-Le-Ni; or, The Horrendous Parade'. Video game. PC. Double Jungle SaS.

Gualeni, S. (2017a) 'Something Something Soup Something'. Video game. PC. University of Malta. Institute of Digital Games. Available at: <http://soup.gua-le-ni.com> (Accessed: 30.03.19).

Hova, G. (2015) 'Bad Medicine'. Card Game. Formal Ferret Games.

id Software (1993) 'Doom'. Video game. PC. id Software.

Infinity Ward (2003) 'Call of Duty'. Video game. PC. Activision.

Intelligent Systems (2001) 'Paper Mario'. Video game. Nintendo 64. Nintendo.

Intelligent Systems (2004) 'Paper Mario: The Thousand-Year Door'. Video game. Nintendo Game Cube. Nintendo.

Interplay Entertainment (1997) 'Fallout'. Video game. PC. Interplay Entertainment.

Jackbox Games (2014) 'The Jackbox Party Pack'. Video game. PC. Jackbox Games.

Jackbox Games (2015) 'The Jackbox Party Pack 2'. Video game. PC. Jackbox Games.

Jackbox Games (2016) 'The Jackbox Party Pack 3'. Video game. PC. Jackbox Games.

Jackbox Games (2017) 'The Jackbox Party Pack 4'. Video game. PC. Jackbox Games.

Jackbox Games (2018) 'The Jackbox Party Pack 5'. Video game. PC. Jackbox Games.

Kirby, M. and Osterhaus, M. A. (1999) 'Apples to Apples'. Card Game. Hasbro.

Kitfox Games (2016) 'Moon Hunters'. Video game. PC. Kitfox Games.

- Klimas, C. (2009) 'Twine'. Game Engine. PC.
- Konami (1998) 'Metal Gear Solid'. Video game. PC. Konami.
- Konami (2001) 'Metal Gear Solid 2: Sons of Liberty'. Video game. PC. Konami.
- Level-5 (2007) 'Professor Layton and the Curious Village'. Video game. Nintendo DS. Nintendo.
- LucasArts (1990) 'The Secret of Monkey Island'. Video game. PC. LucasArts.
- Macklin, C., Sharp, J. and Zimmerman, E. (2011) 'The Metagame'. Card Game. Local No.12.
- McCall, J. (2018) 'Path of Honors: A Roman Adventure'. Video game. PC. Available at: www.philome.la/gamingthepast/path-of-honors-1-12-18/play (Accessed: 30.03.19).
- MicroProse (1991) 'Sid Meier's Civilization'. Video game. PC. MicroProse.
- Molina, L. (2015) 'Painters Guild'. Video game. PC. Lucas Molina.
- Morley, N. (2019b) 'The Melian Dilemma'. Video game. PC. Available at: <http://philome.la/NevilleMorley/the-melian-dilemma> (Accessed: 30.03.19).
- Ochs, J. (2010) 'Snake Oil'. Card Game. Snake Oil LLC.
- Paradox Development Studio (2001a) 'Europa Universalis'. Video game. PC. Paradox Entertainment
- Paradox Development Studio (2001b) 'Europa Universalis II'. Video game. PC. Strategy First
- Rawitsch, D., Heinemann, B. and Dillenberger, P. (1974) 'The Oregon Trail'. Video game. PC. MECC.
- Robinson, L. and Toyne, P. (1984) 'Balderdash'. Card Game. Canada Games.
- Rockstar San Diego (2010) 'Red Dead Redemption'. Video game. PC. Rockstar Games.
- Roubira, J.-L. (2008) 'Dixit'. Card Game. Libellud.

Sega (2014) 'Valkyria Chronicles'. Video game. PC. SEGA.

Square Enix (2018) 'Octopath Traveler'. Video game. Nintendo Switch. Nintendo.

The Creative Assembly (2000) 'Shogun: Total War'. Video game. PC. Electronic Arts & Sold-Out Software.

Toby Fox (2015) 'UNDERTALE'. Video game. PC. Toby Fo10.

Ubisoft Montpellier (2014) 'Valiant Hearts: The Great War'. Video game. PC. Ubisoft.

Ubisoft Montreal (2007) 'Assassin's Creed'. Video game. PC. Ubisoft.

Unity Technologies (2005) 'Unity Engine'. Game Engine. PC.

Upper One Games (2014) 'Never Alone. Kisiima Injitchuŋa'. Video game. PC. E-Line Media.

Wispfire (2016) 'Herald: An Interactive Period Drama'. Video game. PC. Wispfire.

Chapter 10. Appendices

10.1 Ethical Review



Certificate of Approval	
Reference Number	ER/MC596/5
Title Of Project	Exploring the Potential of Video Games to Engage in Deconstructing History at Undergraduate Education (COPY)
Principal Investigator (PI):	Manuel Alejandro Cruz Martinez
Student	Manuel Alejandro Cruz Martinez
Collaborators	
Duration Of Approval	11.5 months
Expected Start Date	15-Nov-2016
Date Of Approval	05-Dec-2016
Approval Expiry Date	31-Oct-2017
Approved By	Jayne Paulin
Name of Authorised Signatory	Liz McDonnell
Date	05-Dec-2016
<p>*NB. If the actual project start date is delayed beyond 12 months of the expected start date, this Certificate of Approval will lapse and the project will need to be reviewed again to take account of changed circumstances such as legislation, sponsor requirements and University procedures.</p> <p>Please note and follow the requirements for approved submissions:</p> <p>Amendments to protocol</p> <ul style="list-style-type: none"> * Any changes or amendments to approved protocols must be submitted to the C-REC for authorisation prior to implementation. <p>Feedback regarding the status and conduct of approved projects</p> <ul style="list-style-type: none"> * Any incidents with ethical implications that occur during the implementation of the project must be reported immediately to the Chair of the C-REC. <p>Feedback regarding any adverse and unexpected events</p> <ul style="list-style-type: none"> * Any adverse (undesirable and unintended) and unexpected events that occur during the implementation of the project must be reported to the Chair of the Social Sciences C-REC. In the event of a serious adverse event, research must be stopped immediately and the Chair alerted within 24 hours of the occurrence. 	

10.2 Design Workshops Documentation

10.2.a Call for Participation

Historical Video Games Research Workshop

Interested in history and video games?
Eager to explore the possibilities of the medium?

Take part in this research study!

DEBATE
about history

PLAY & ANALYSE
historical video games

DESIGN
your own game

All cooperatively with other participants!
And **no experience in games required!**

WHEN?
Friday, December 16
09:30 to 12:30

WHERE?
Sussex Humanities Lab
Silverstone Building SB211
University of Sussex

(This workshop is part of a PhD research project. For more information contact Manuel Cruz m.a.cruz@sussex.ac.uk)

10.2.b Information Sheet

Research Project Information Sheet

STUDY TITLE

Historical video games' design workshops.

INVITATION PARAGRAPH

I would like to invite you to take part in a research study. Before you decide whether or not to take part, you need to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Ask questions if anything you read is not clear or you would like more information. Take your time to decide whether or not to take part.

WHAT IS THE PURPOSE OF THE STUDY?

These workshops are part of PhD research focused on exploring the potential of video games to engage with deconstructing history and prompting critical historiographical debates. The project includes creating and testing a video game prototype that will be inspired from the outcome of these workshops. The goal of these workshops is to analyse how students engage with the medium and explore its possibilities, when debating particularly around two topics: diversity and subjectivity. Participants will be informed about the topic of each session in advance. The workshops will involve cooperative playful activities for brainstorming and game design, to outline ideas on how the medium could be used for engaging with each of the topics. All the data will be collected and analysed for the unique purpose of this research. The benefits of this project are to strengthen knowledge and understanding of the capabilities of historical video games as historical devices and promote reflection on how to include this medium in the historical practice.

DO I HAVE TO TAKE PART?

Your participation is absolutely voluntary. I believe your participation can make an important contribution to the research. However, it is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part, you are still free to withdraw at any time and without giving a reason.

WHAT WILL HAPPEN TO ME IF I TAKE PART?

If you decide to participate in the research, I will ask you to read this information sheet and sign the consent form. Once the consent form is signed I will conduct an introduction to all the participants explaining the activities and letting you ask any questions about it. I will organise a round of presentations and I will divide the group into small groups of three to four participants. The first stage of the workshop will consist of a series of conversation starters, questions, and/or examples to be analysed and answered within the small groups for about 15 minutes. Then each small group will share their debates and conclusions with the rest of the group, and we will narrow down some common ideas in a 15 minutes debate session. With these ideas in mind, we will begin the design activity organised in small groups again. I will first conduct a 15 minutes test to showcase how the design activity works, and then we will move into the proper design

activity for about 30 minutes. Afterwards, each small group will present their historical video game concepts for about 10 minutes. We will close the workshop with a 15 minutes play session of selected historical video games and a brief 10 minutes debate contrasting how commercial games engage with the issues we have discussed and how the games designed in the workshop offer similar/different approaches. In total, the workshop will take about 2 hours.

WHAT ARE THE POSSIBLE DISADVANTAGES AND RISKS OF TAKING PART?

All information provided by you will be kept confidential at all times. All responses to the interview questions and information provided by you will be anonymised i.e. no personal details relating to you will be recorded anywhere. Only the researcher and the supervision team will have access to the information you provide.

WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?

These workshops are designed for participants to engage with the medium and reconsider its potential as a historical format to be analysed and/or used. This workshop will provide you with a general sense of how history have been portrayed in the medium and what unique characteristics video games offer to engage with different historical approaches. You also will be able to engage directly with a doctoral research in history and video games, giving you a glimpse of the topics and possibilities open for further research and offering you a general sense of how active research with cultural media might operate. In addition, the information you provide will contribute to the future development of education and history.

WILL MY INFORMATION IN THIS STUDY BE KEPT CONFIDENTIAL?

All information you provide to us will be kept confidential. Only the researcher and the supervision team will have access to it. Under no circumstances will identifiable responses be provided to any other third party. Information emanating from the evaluation will only be made public in a completely unattributable format or at the aggregate level in order to ensure that no participant will be identified. The ideas that you will share during the design activities will only be used for analysis, allowing to define further concepts for the video game prototype. You can also withdraw at any time without giving reason, and you can ask for your recording to be destroyed and your data to be removed from the project until it is no longer practical to do so.

WHAT WILL HAPPEN TO THE RESULTS OF THE RESEARCH STUDY?

All information provided by you will be stored anonymously on a computer with analysis of the information obtained by the researcher. The information provided might be anonymously referred in some chapters of the final doctoral thesis. After the project is complete, I will present this thesis to a panel of assessors at the university and a wider audience of peers and colleagues. You will be given the option to have a virtual copy of it, and to be informed about any paper of conference directly related to this doctoral research, as well as a copy of the video game prototype. Additionally, a digital version of the video game prototype will be available online for free and public access to anyone, with a Creative Commons license (Attribution-

NonCommercial-NoDerivatives 4.0 International) that will prevent any commercial uses of the prototype or derivative software.

WHO IS ORGANISING AND FUNDING THE RESEARCH?

The research project is being conducted by Manuel Alejandro Cruz, PhD student of Education, at the School of Education at University of Sussex, and it is being funded by Sussex Humanities Lab.

DATE

10.2.c Consent Form

Consent Form for Project Participants

PROJECT TITLE: Historical video games' design workshops

Project Approval ER/MC596/5

Reference:

I agree to take part in the above University of Sussex research project. I have had the project explained to me and I have read and understood the Information Sheet, which I may keep for records. I understand that agreeing to take part means that I am willing to:

- Actively participate in the group debates with other participants.
- Engage with the video game design activities by sharing and contesting ideas.
- Engage with the video game playing activity by analysing and debating historical representations.
- Be interviewed by the researcher about the debates and activities I will take part in.
- Allow the researcher to collect and analyse the data from this workshop and use it for completing the research and as inspiration for the video game prototype.
- Allow the debates and activities to be video and audio taped.
- Make myself available for a further interview should that be required.

I understand that any information I provide is confidential, and that no information that I disclose will lead to the identification of any individual in the reports on the project, either by the researcher or by any other party. I understand that I can request a copy of the transcript of data concerning me for my approval before being included in the write up of the research.

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any time without giving reason. I can ask for my recording to be destroyed and for my data to be removed from the project, until it is no longer practical to do so.

I consent to the processing of my personal information for the purposes of this research study. I understand that such information will be treated as strictly confidential and handled in accordance with the Data Protection Act 1998.

Name: _____

Signature: _____

Date: _____

10.2.d Acknowledgment Form

Optional Consent for Acknowledgement

I consent to be credited, by a name or a pseudonym of my preference, in the final video game prototype that this research will lead to.

I understand that the final video game prototype will be available online for free and public access to anyone, with a Creative Commons license (Attribution NonCommercial-NoDerivatives 4.0 International) that will prevent any commercial uses of the prototype or derivative software.

I understand that my consent for being credited is voluntary, that I can choose not to be credited at any stage of the project without giving reason. I can ask for my name or pseudonym to be excluded from the prototype until it is no longer practical to do so.

Name or pseudonym to display: _____

Name: _____

Signature: _____

Date: _____

10.2.e Activity: Conversation Starters

Activity description

Participants arranged in small groups were given cards with conversation starters consisting of 5 questions.

The first 3 questions were designed so participants could gradually engage with the topic of historical video games. The other two questions introduced the topic of “diversity”. These questions were:

- Which video games do you know, play, or enjoy particularly and why? (be concise)
- Could you identify reference to historical contexts in some of the games you know? (Specify which games and contexts)
- How do these games allow you to interact with the referenced historical contexts?
- Do you feel these games offer a diverse selection of historical and cultural contexts? (Yes? No? Why?)
- What kind of interactions or representations do you feel are more adequate to explore or highlight diversity?

Afterwards, all participants’ groups shared their discussions to make a list of common ideas. These ideas were written on sticky notes and stuck on a visible wall. Ideas were ordered, with the consensus of the group, under the labels “yes”/“nope”/“so so”, to indicate whether they like or disliked these ideas.

This activity was included in all instances of the design workshops.

Reasoning

This activity was based on a strategy from cooperative learning named “round robin” (Kagan and Kagan, 2009), where participants take turns to speak and answer a given question. I wanted to start the design workshops with a simple activity that will slowly encourage participants to talk. I believed this activity will get participants to familiarise with each other and openly share their experiences with, and thoughts about, historical video games. The topic of diversity was introduced to encourage participants towards

historiographical debates and get them to discuss how history is conveyed in historical video games.

I also wanted to cross ideas between the different small groups, and thus added a broader discussion at the end. Finally, I wanted participants to use their own discussions as guidelines for their video game designs, so I wrote down their ideas and asked them to organise them in terms of positive and negative aspects, so they could later apply or subvert them in the design activity.

10.2.f Activity: Text Commentary

Activity description

Participants arranged in small groups were given a history-related text extracted from historical video games and a set of questions to analyse. The texts given to participants can be found below:

Text 1: “The Mayans” extracted from *Age of Empires II* (Ensemble Studios).

“The Mayans occupied the Yucatan peninsula, modern Honduras, and modern Guatemala. They date back perhaps to the second millennium BC, but peaked between 600 and 900 AD. Though they lived on lands of marginal agricultural value, they created monuments and ceremonial centres nearly as impressive as those in Egypt. The extent of the ceremonial building is surprising because their religion was relatively simple. Their architecture was also less developed, though undeniably impressive, compared to contemporary advances made elsewhere in the world. They invented a unique written language that is only being deciphered today. Three Mayan books survive to the present, the remnants of a much larger number destroyed by Europeans who feared they contained heresy.”

Text 2: “The History of Gallia” extracted from *Valkyria Chronicles* (SEGA).

“The nation was formally born in the 3rd Century, when Castle Randgriz was built and rule over surrounding areas began. When the Empire invaded Gallia at the turn of the 19th Century, the king renounced his crown, instead ruling over an autonomous region within the Empire as archduke. But as democratic movements swept western Europa, the archduke harnessed that energy in Gallia to push for freedom from the Empire, resulting in the War of Gallian Independence. Stretched thin between multiple fronts, the Empire was unable to maintain its hold, and the small nation rose as the independent Principality of Gallia, declaring neutrality and establishing a system of universal conscription.”

Text 3: “The Home Front” extracted from *Valiant Hearts: The Great War* (Ubisoft Montpellier).

“With practically all able-bodied men mobilised at the front, women, children and the elderly were employed in factories to ensure weapons production. Women took on traditional male jobs, some even held positions of responsibility. This new role changed their status in society, and in the wake of the war, women over 30 years old were given the vote. The Women’s Institute held its first meeting in 1915, with the aim of encouraging women to become more involved in food production during the war, and the movement flourished.”

The questions given to participants are as follow:

Take a look at the text you have on the table. Read it carefully and try to analyse how the text is referring to the past and to history.

- Do you think this text is historical, fictive, none of them, or something in between?
- Check the wording and the focus of the text and try identifying biases / intentionality / historical approaches.

Afterwards, all participants' groups shared their discussions to make a list of common ideas. These ideas were written on sticky notes and stuck on a visible wall, without arrangement.

This activity was included in the second and third instances of the design workshop.

Reasoning

This activity was also based on a strategy from cooperative learning named "round robin" (Kagan and Kagan, 2009), where participants take turns to speak and answer a given question. In this case, I wanted participants to engage with historical content in historical video games. I decided to use a text commentary as an activity that history students will be used to engage with, and I used history-related texts that will have historical information or will be written in the form of historical academic texts.

The texts used came from historical video games that had historical-related texts shown in the form of encyclopaedias. This was due to practicality, but also because the texts in that format are more similar to academic historical texts. Two of the video games selected, *Age of Empires II* (Ensemble Studios, 1999), and *Valiant Hearts* (Ubisoft Montpellier, 2014) are historically themed and tackle events of the past. The third video game chosen, *Valkyria Chronicles* (Sega, 2014), has instead a fictional story heavily inspired by the events of the second world war. Despite the absence of direct references to historical events in this video game, it still relies on the formal structure of historical texts to convey this fictional story, and because of that I thought it would be useful to introduce debates on the formal relation between fiction and history among participants.

In the questions, I wanted to encourage discussions about subjectivity, by asking about the historical references within the text and the intentionality, biases, or historiographical

approaches that they could identify. This focus towards subjectivity was aimed to foster discussions of authority and the ontological differentiation between the past and history.

Again, I also wanted to cross ideas between the different small groups, and thus added a broader discussion at the end. I wanted participants to use their own discussions as guidelines for their video game designs, so I wrote down their ideas on sticky notes and let them in a visible place, so they could later look at them for inspiration in the design activity. As I expected a wider range of ideas to come out of this activity, I did not ask participants to arrange them.

10.2.g Activity: Designer Role-Play

Activity description

Participants in small groups assume the role of video game designers with the goal of developing a conceptual design of a historical video game based on a given theme and inspired by their previous discussions. The themes selected changed with each instance of the design workshop. For the first design workshop, the theme was “Victorian Era”. For the third design workshops, the theme was “How history is made” (see reasoning for these themes below). This activity was not carried over in the second workshop due to shortage of participants.

During the activity, participants had to: generate ideas using brainstorming and sticky notes; discuss and write down an outline of their video games; and draw conceptual sketches of their design. Afterwards, all participants’ groups presented their designs and explained how they addressed contentious topics.

Reasoning

This was the main activity of the design workshop. The idea behind it was to put participants in the perspective of video game designers and encourage them to highlight and apply formal aspects of the medium in the creation of a historical narrative. Doing so, I wanted to see how their ideas about historical video games changed, what could the design perspective add to their debates, how would they craft their historical narrative, and how they would address potential issues.

The designer role-play activity was structured around practical tasks, like drawing concept sketches on paper, sharing thoughts using sticky notes (Druin et al., 2001), and low-tech prototyping to create conceptual prototypes in non-digital mediums (Good and Robertson, 2006). This activity was inspired by a game design workshop run by Brenda Romero in 2014 at the University of Limerick, but it required several iterations to try different design techniques from participatory design examples, considering multiple toolkits (Sanders, 2002; Sanders and Stappers, 2014). During the pilots I found that participants engaged with the design activity positively without requiring much encouragement, but also, that they did not follow instructions strictly, and instead opted for discussing ideas more openly. So, I decided to use techniques that were simple to engage, but also that did not require much commitment, and reflected the engagement seen in the pilots, such as sticky notes, outlining, and conceptual sketching. Sticky notes and outlining helped to organise participants' ideas and discussions, while conceptual sketching forced them to visualise their common ideas, bring new discussions, and have a reference to present their games to other groups. Presenting their designs at the end of the activity was another way to encourage participants into designing, and to compare approaches towards the same theme.

Before the designer role-play activity, I decided to do a shorter test with participants, having them get familiar with the process but with a topic that was not history-related, and that will not imply historiographical debates. For the themes of these tests, I randomly chose a TV show for each small group, as a playful topic. I added extra challenges by setting limitations, such as hardware specificities and forced mechanics (touch screen, micropayments, AR, geolocation, etc...), with the purpose of getting them engage more with the activity and feel themselves in the position of real video game designers. While this test took time out of the design workshop, I decided to include it because during the pilots it proved useful in letting participants get familiar with the process. Once participants are confident about how to confront a design process, I believe they focus more on debating about history and historiography.

The themes for the designer role-play activity changed with each instance of the design workshop. For the first design workshop, participants had to develop a historical video game based on the "Victorian Era". I chose this theme because I thought this period would be well-known by UK university students and because it covers an extended timespan,

giving participants plenty of topics, events, and characters that they could focus on. For the second workshop, this activity was not included because there was only one participant. And finally, for the third design workshop participants had to design a game based on “How history is made”. I change the theme from a context to a more abstract and provocative idea. I was aiming to encourage participants to think critically about their own role and activity as historians, and to find a playful approach to their own discipline.

10.2.hActivity: Play Session

Activity description

Participants in small groups got to play a selected historical video game, discuss them based on given questions, and share their thoughts about it afterwards with the other groups.

The historical video games selected for this activity were:

- *Never Alone* (Kisima Ingitchuna) (Upper One Games, 2014).
- *Moon Hunters* (Kitfox Games, 2016).
- *Painters Guild* (Molina, 2015).
- *The Cat and the Coup* (Brinson and ValaNejad, 2011).

The questions given to participants were:

- Which game you played and what are your thoughts on it?
- Do you think these games engage with the topics we have discussed today? And in which way?
- Do you feel the games you have designed today engage with these issues differently than current games? How?

This activity was included in the second and third workshop.

Reasoning

The historical video game play session was added to the design workshops as a way to encourage debate and criticism on existing historical video games. Initially, this activity was included at the beginning of the workshop, to serve as motivation for participants' debates. However, upon trying this activity on the pilots, I realised that if the play activity

was carried before the design activity, participants' designs tended to imitate or fixate on the mechanics, themes, and formulas of the video games they played. Because of this, I moved the play activity to the end of the design workshop so participants could compare their designs with existing historical video games. This will give room to reflect on their own designs and the possibilities of the medium.

In this sense, I selected historical video games created by indie developers and that will probably be unknown to participants. I also looked for games that engaged with the topics of diversity and subjectivity used in the design workshop to encourage debate. These games were:

- *Never Alone* (Kisima Ingitchuna) (Upper One Games, 2014), a platformer historical video game based on traditional Iñupiaq tales and developed in partnership with the Cook Inlet Tribal Council. It is a well-known indie title, but it touches upon a historical context that is uncommon in video games and could foster participants' discussions. This game was played in the second workshop.
- *Moon Hunters* (Kitfox Games, 2016), an indie action RPG video game inspired by ancient western Asia societies and religion. While not historical per-se, the gameplay is focused towards "creating legends", with players having to make decisions that will be recorded in the legendary account of their lives. I included this game thinking it will encourage debates about history as a narrative. This game was played in the second workshop.
- *Painters Guild* (Molina, 2015), an indie managing historical video game set in Italy during the Renaissance, where players have to manage an art workshop, painting, selling artworks, and hiring artists. I chose this video game for its unique gameplay and uncommon genre for a historical video game. I wanted to foster participants' debates about different mechanics for historical video games. This game was played in the third workshop.
- *The Cat and the Coup* (Brinson and ValaNejad, 2011), a documentary puzzle historical video game, based on Mohammed Mossadegh, Iranian Prime Minister in the 1950s. Players enact a black cat that follows Mr Mossadegh through several rooms, where the story of his government and downfall is told through brief sentences and symbolic illustrations. I picked this title to encourage discussions

on video games as somethings more than entertainment, and how it could be used as documentary. This game was played in the second and third workshop.

The video games were running on laptops set for the occasion and using mouse and keyboard for input. I took notes from their impressions during and after playing. Due to time, this activity was not included on the first design workshop. In the second workshop there was only one participant, so we agreed on doing an interview while playing some of these video games.

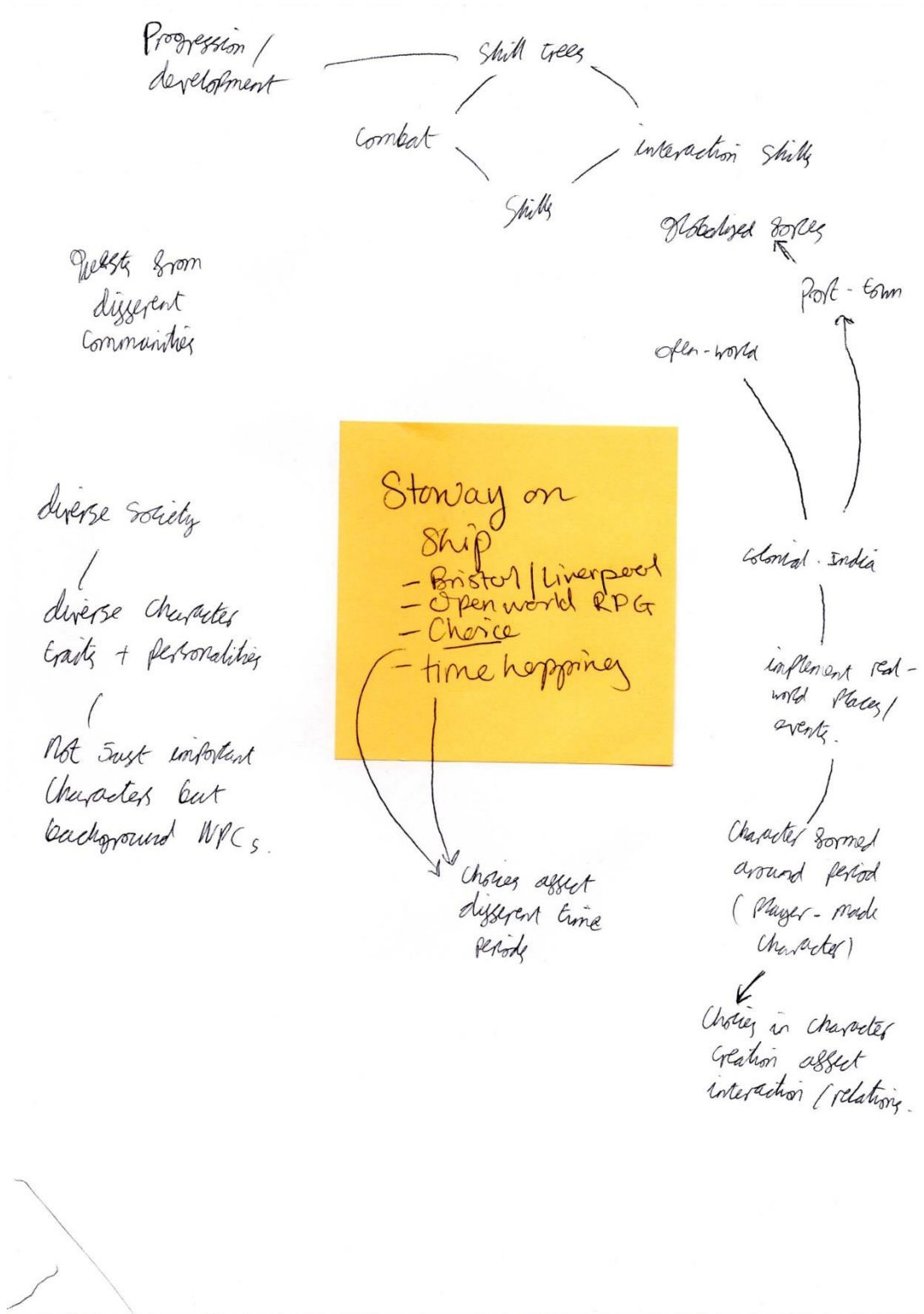
10.3 Design Workshop Data

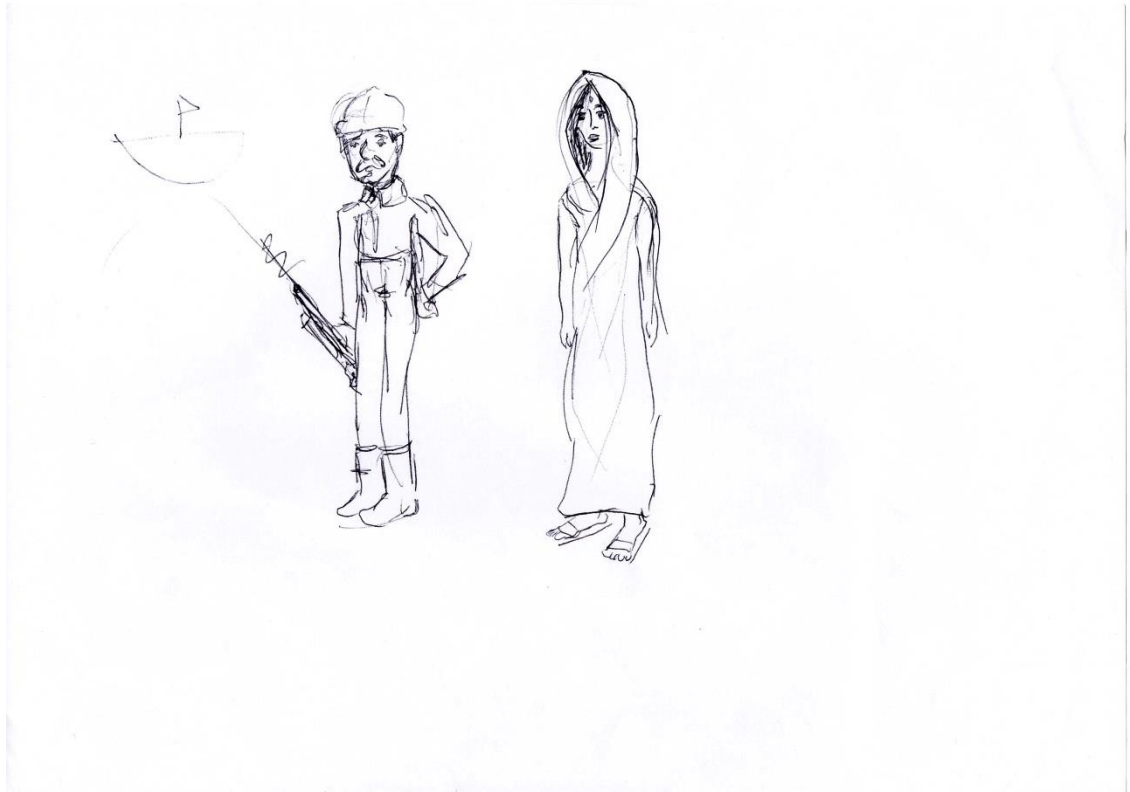
10.3.a Participants Background

<i>Participants</i>	Gender	Course	Nationality	Video games engagement
<i>PA1</i>	Man	UG history 3rd year	UK	High
<i>PB1</i>	Man	UG history 1st year	UK	Average
<i>PC1</i>	Woman	UG history 3rd year	UK	Average
<i>PA2</i>	Woman	UG history 1st year	UK	High
<i>PA3</i>	Man	PGCE History UG in Politics	UK	Low
<i>PB3</i>	Man	PGCE History UG in History	UK	High
<i>PC3</i>	Man	PGCE History UG in History	UK	High
<i>PD3</i>	Woman	PGCE History UG in Law	UK	Average
<i>PE3</i>	Woman	PGCE History UG in History	UK	None
<i>PF3</i>	Woman	PGCE History UG in History	UK	Average
<i>PG3</i>	Man	PGCE History Not specified	UK	Low
<i>PH3</i>	Woman	PGCE History UG in History	UK	High
<i>PI3</i>	Man	PGCE History UG in History	UK	High

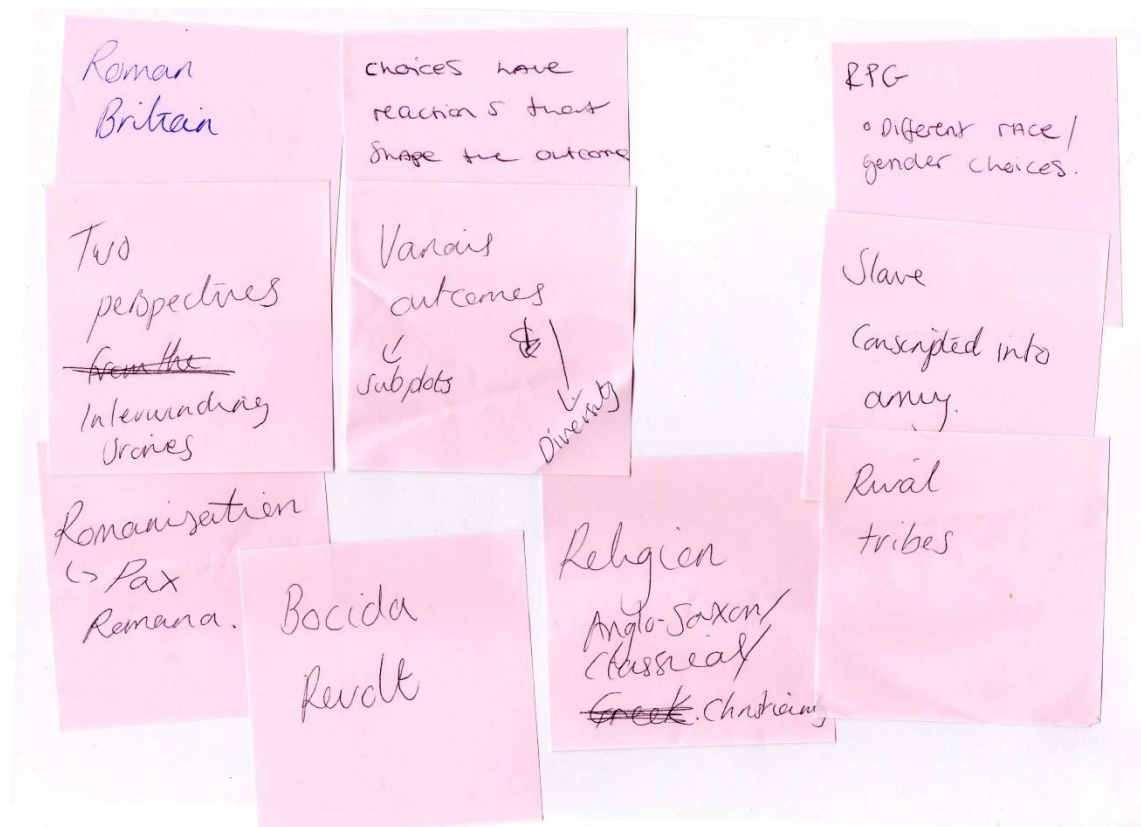
10.3.b Participants' Design Outlines and Concept Art

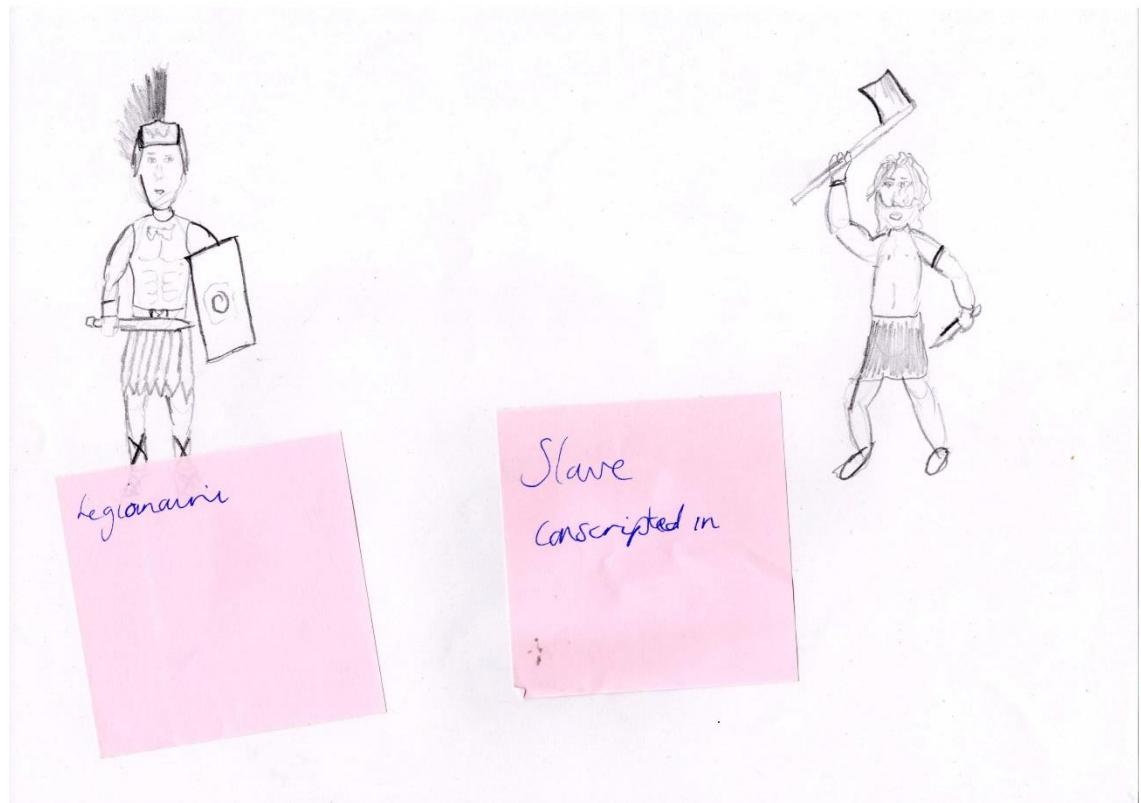
Group 1



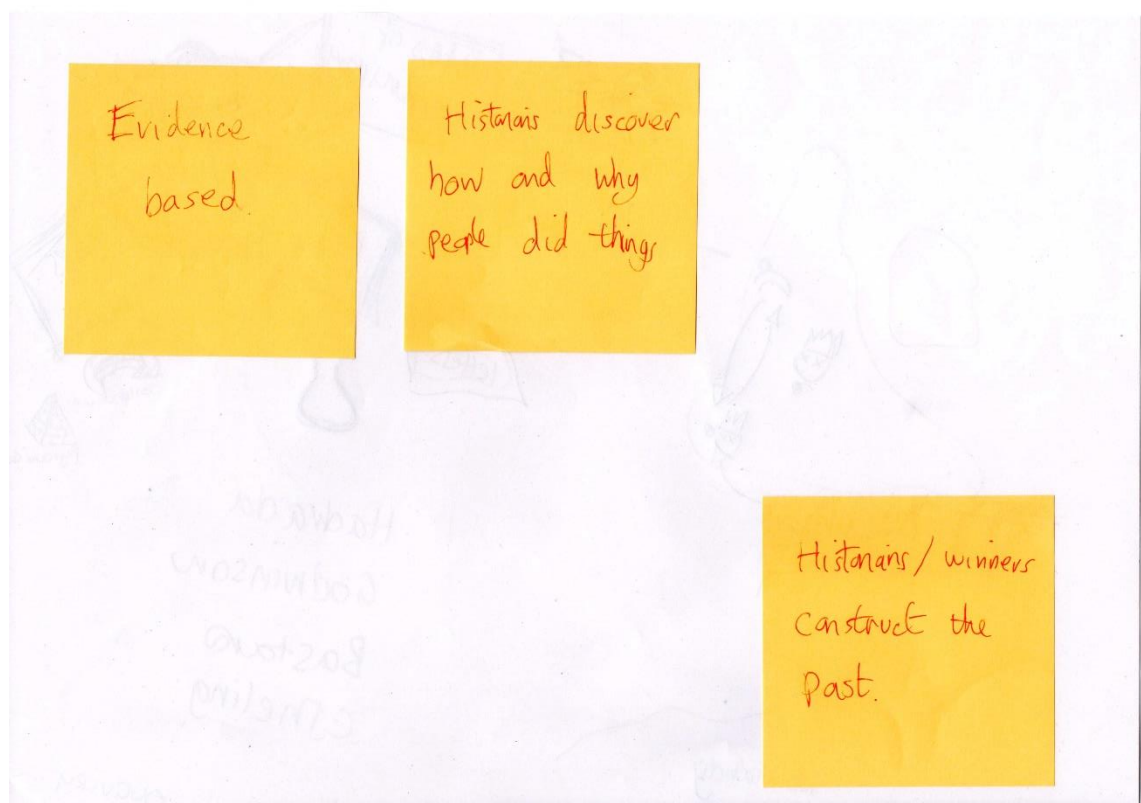


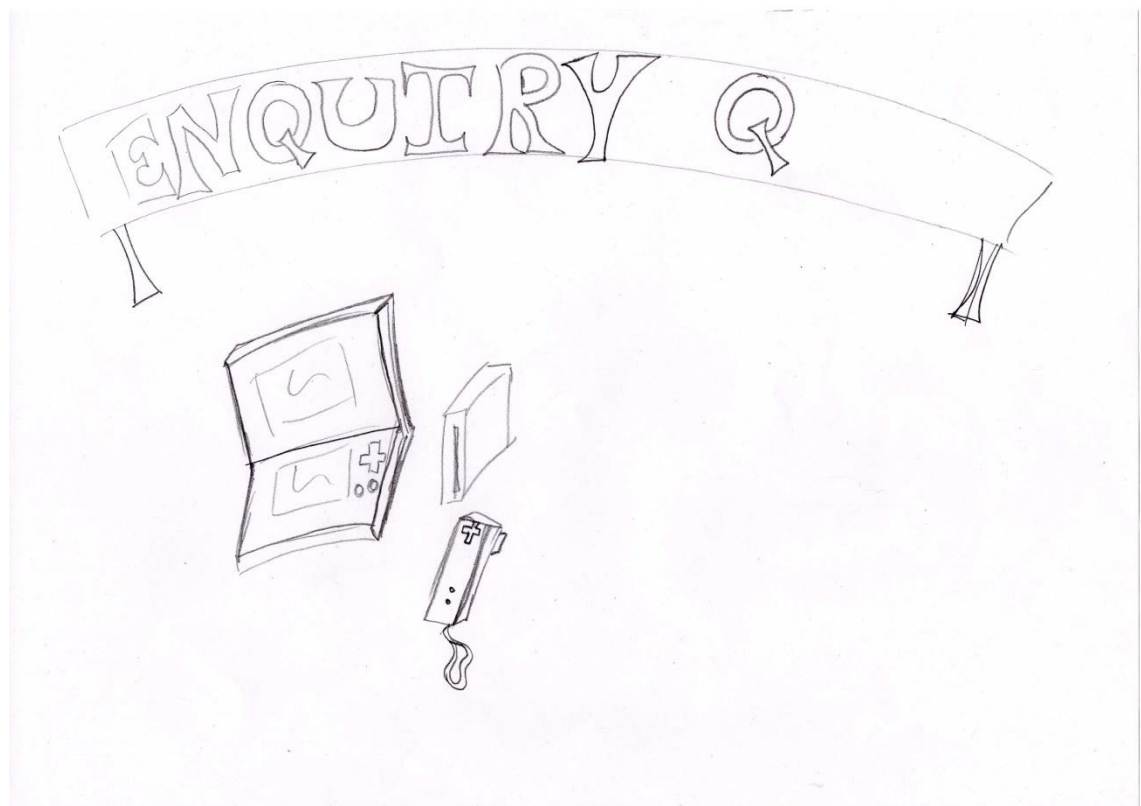
Group 2





Group 3





10.3.c Partial Transcription Example

Design workshop 3 – Group 2 – Design Activity

PI3 brings Prof. Layton as an example and proposes: “I am thinking like you are an historian”.

PF3 brings Broken Sword as another example where you play as an archaeologist: “and you have to go and discover stuff and dig out things”.

PG3 adds “How about rather than how humans make history, how about how historians make history”.

PI3 “Yeah that is what I was thinking, but how is history made?”

PG3 “But how the historians make history?”

PI3 “It is evidence based, right?”

PG3 “So, you are a historian and you have to write a text selling people popular history book”

PH3 explains Prof. Layton. It has mini games and by completing different levels players can construct a story: “completing a broken story”.

PG3 “Historians came up with a hypothesis and then start looking for evidence”

PI3 “So, historians construct the past I think”

PF3 “Yeah”

PI3 “But, it is still... it is evidence based. But also, historians construct it, so there is no truth”

PF3 “It can”

PG3 “Well, people do things, so we make history doing things, that is one... you can say that is making history. How and why the people do things, why they made the decisions they made”

PI3 “So history discovers how and why people do things?”

PH3 “You could also address there that, like they were saying, history is made from the winners’ perspective, so history is made by the winners”

PI3 “That is interesting thought, because developers... I do not think they think much about it”.

(...)

10.4 Low-tech Prototypes

10.4.a Low-tech Prototype 1

Objectives:

To experiment with the genre of CJ, mimicking ruleset from *Cards against humanity* (Dillon *et al.*, 2011), to evaluate how useful it can be.

Description:

CJ card game. Made with pen and paper.

The game presents a phrase with missing nouns:

“I will bring _____ to the _____”

There are two sets of cards, one with names of places (red cards, 30 in total) and another with names of objects/animals/people (green cards, 60 in total).

Players are given a number of “object/green” cards. Each round, one player takes the role of the “ruler”. The “ruler” grabs a random “place/red” card and shows it, completing the phrase of the game. (E.g. “I will bring _____ to the “Bonfire”.) The rest of the players have to select a card from their hand that will complete the sentence in the most suitable or enjoyable way (E.g. “I will bring “a lighter” to the “bonfire”). Players give their selected cards to the “ruler” who shuffles the cards and reveal them. Then, the “ruler” reads all the possible sentences and picks one that will please him/her the most. Points are given to the owner of the selected card, and round ends.

This same game mode can be played giving players “place/red” cards instead of “object/green” cards and making the “ruler” unveil an “object/green” card each turn.

Observations:

Players found the game enjoyable, and different than *Cards Against Humanity*: while rules were the same, the setting and theme seems to give them the impression of a whole different game. This setting exercises the concepts of *subjectivity* and *interpretation*, but it does not exceed in exploring *consensus*. It could be argued that *consensus* is given by

players each turn when designating a “ruler” (called “tsar” in *Cards Against Humanity*). However, it is this designated ruler who decides the outcome of the round, which given little exploration of the concept.

10.4.bLow-tech Prototype 2

Objectives:

To experiment with the genre of CJ, mimicking ruleset from *Dixit* (Roubira, 2008), to evaluate how useful it can be.

Description:

CJ card game. Made with pen and paper.

The game presents a phrase with missing nouns:

“I will bring _____ to the _____”

There are two sets of cards, one with names of places (red cards, 30 in total) and another with names of objects/animals/people (green cards, 60 in total).

Players are not given any cards. Instead, a number between 4 to 8 (varies) “object/green” cards are displayed in order and revealed on the top of the table. Each round, a “place/red” card is also revealed, and players have to vote (with their fingers) for which “object/green” card they think will fit better with the sentence. The card that gets more votes from the players is the winner of the round. Players who voted for that card will get points, and both, the “place/red” card and the winner “object/green” card will get discarded, bringing new ones for the next round.

We changed the number of “object/green” cards on the table, as initially, 4 cards did not give players many choices. We moved to 6 cards initially, and then to 8 cards. While the game was more dynamic with 8 cards, it also prompted many draws. Because of this, we also started changing all the “object/green” cards that received votes in each round, despite if it was a winner card or not.

Observations:

This game was an attempt to bring the *consensus* mechanic explored in *Dixit* (Roubira, 2008). In this game mode, there is no “correct” choice, and the winner is selected based on the players’ votes, much as in *Dixit*. However, unlike *Dixit*, players do not choose their cards, lessening the exploration of *subjectivity* and *interpretation* to some degree (even when players do exercise them when picking a card).

Players enjoyed this game mode more than the previous one. In retrospective, it might also be because of the “finger pointing” mechanic, that made players rush towards the cards and get in weird positions/situations. They did not associate the prototype with *Dixit*. The game also generated debate among players. Sometimes a player will ask another about their choices, arguing that such object was either “absurd” or “not funny” to match with that round’s place. These debates got more intense as the game progressed and gave me the impression that this game mode could provoke more debates than the previous one.

10.4.c Low-tech Prototype 3

Objectives:

To evaluate how history, as a theme, will operate in a CJ game.

Description:

CJ card game. Made with pen and paper.

Copy of *Cards Against Humanity* (Dillon *et al.*, 2011) and *The Metagame* (Macklin, Sharp and Zimmerman, 2011). Instead of popular culture references and sentences with obscure connotations, I introduced nouns related to history and historiography, and sentences with similar structure to those in history books. Besides the changes in content, the game rules were the same:

Each player holds a number of “noun” cards. Each round, one player takes the role of the “Tsar”, and it is assigned to grab and show a random “sentence” card from the pile. The other players have to select a “noun” card in their hand that will fill the “sentence” card. After all players give their selected “noun” card, the “Tsar” player selects one that makes the more humorous or suitable outcome. Points are given to the player whose card was selected, and a new round starts with another player assuming the role of the “tsar”.

Observations:

The outcome of the activity was positive. Participants enjoyed the game. However, the activity lacked from the exploration of “consensus” that showed potential in the previous low-tech prototype.

History merged well with the CJ approach. In some cases, participants debated around the accuracy of their sentences, but in others, they just looked for the most “funny” or “inappropriate” ones. This could be a consequence of their previous experience with “cards against humanity”, which has a clear humorous goal. However, as players take turns to dictate their judgement, it was clear that some of them were prioritising accuracy while other were rewarding humour.

All the participants were historians, so there were no doubts about the content of the cards. Only in one occasion a participant asked for the meaning of a card that had the name of a famous historian. This was one of my concerns, as I wanted to introduce not only history, but also historiography, and I was afraid of participants’ reception and whether they will be familiar with historiography or not. However, as the participant argued, he had no need of using that card, because he had more cards on his hand to use. Having multiple choices allowed to overpass this situation. Despite this, it was noted that sentences and nouns related to historiography prompted more amusement around participants.

10.4.dLow-tech Prototype 4

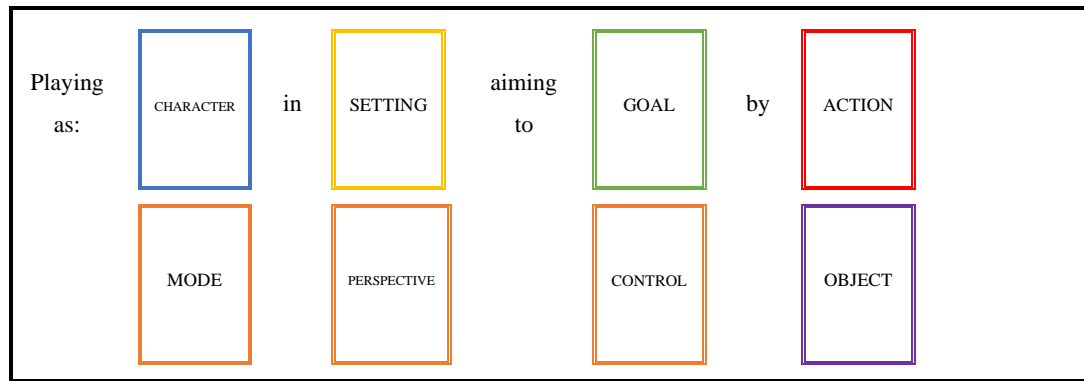
Objectives:

To consider how the theme of “making a historical video game” will fit in a CJ game.

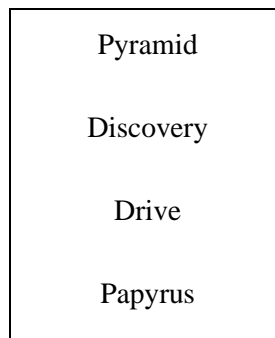
Description:

CJ card game. Made with pen and paper.

The game included 2 decks and a board. The board showed a number of different variables for the video game, such as “character”, “setting”, “goal”, “perspective”, “controls”, or “action”. Beside each variable there was an empty space to place cards on it, and an indicator to signal which cards could be placed



One of the card decks, the “Tech Deck”, contained cards with “technical” aspects, from screen perspective, to video game genre, to multiple forms of input. The other deck, the “Variables Deck” contained cards with 4 nouns in each of them. These nouns were colour coded, to help recognise which category each noun belonged to. The first noun in each card referred to possible historical characters. The second one included a goal or objective. The third, a possible action or affordance. And the last noun in each card represented an object to use.



The objective of the game was “to design a historical video game”, by filling the gaps in the board with selected cards. The game played in two rounds. During the first round, the upper part of the board had to be completed. The “setting” slot was filled by default for this test session, with the context of “Ancient Egypt”. This part was played similar to “Cards against humanity”, but with a small twist: having all players judging different categories at the same time. Players were given several cards from the “Variables Deck”. Each player was assigned for being the judge of one category: Player 1 had to judge the “character” slot, player 2 the “Goal” slot, and so on up to 4 players. Then, each player had to select from their hand one card for each category, except the one they will be judging. They will put the card upside down on the board. Once every slot had three cards upside down, players will discard their hands and grab the cards in the slot they are meant

to judge. They will then select one of these cards to fit the slot, based on their own preferences. All players will reveal their choice, and points were given to those whose card was selected.

Once the upper half of the board is completed, players moved to the second half of the game. Here, a set of random cards from the “Tech Deck” will be presented to all players. They will have to vote for which one will fill each of the categories in the lower level of the board. The most voted card in each round was selected, and players who voted for it got points.

At the end, the game board will show a concept for a video game, and players with most points will be granted to be recognised first in the “credits” of their game.

Observations:

This prototype was more complex than previous ones. It used a type of cards that participants were not familiar with, and it required a slightly longer play session. It also introduced a variable on the traditional style of play from “cards against humanities” that, while making the game faster, also entailed more confusion and chaos among players: having to decide on multiple categories at the same time did not seem greeted. Manually handing the game as well entailed some difficulties: having to place and discard cards at multiple times brought confusion as well.

Having Multi-category cards was something that I decided to introduce, inspired by the CJ game “Bad Medicine”. Using this type of cards adds strategy to the game, as it multiplies players options: a single card now represents 4 possible answers in 4 different categories. But it also increases risk and anxiety, as giving up one card implies losing 3 other possible responses. It is, however, a resource and approach to CJ that I had yet to try.

The low-tech prototype was also missing a set of cards: the setting cards. Initially, I wanted to include the variable “setting” to function just like the others. However, that would have implied adding characters, goals, actions, and objects, that referred to multiple contexts at once. I thought this would make the game more confusing, as people might not know about certain contexts. I also wanted to see how much could be done within one context, how many variables could be created for a specific setting. Ultimately,

I envisioned that the setting cards could be associated to the decks, and so the context will be selected at the beginning of the game, and a specific deck for that context will be used.

The “setting” for the low-tech prototype was “ancient Egypt”, as a fairly recognisable and knowable historical period. There were also some cards with historiography references, introducing historians, or academic “goals” and “actions”.

Overall, participants did not enjoy this low-tech prototype. They all agree on the same feedback: touching two different expertise and from a technical/theoretical perspective, is too much. Both themes: history/historiography, and video game/video game developing, were too specific. Some participants were not familiar with video games, and other showed difficulties with historiography. This was the main out take from this low-tech prototype: handling multiple themes implied an extra challenge to be aware of.

10.4.e Low-tech Prototype 5

Objectives:

Exploring the concept of “space”, attempting to replicate the same process that the virtual environment of a digital prototype could offer, and to check the outcome of such engagement without investing time in coding.

Description:

CJ card game. Made with pen and paper.

Same cards than low-tech prototype 3, but different ruleset:

Players were not given any cards. Instead, several “noun” cards were placed upside down in the table. Each round, one player took the role of “judge”, and grabbed a random “sentence” card from the deck, sharing it with the others. The rest of the players will then grab cards from the table. They only can have one card at a time in their hand. If they pick a card that they do not deem fitting for the sentence of that round, they will place it down again, and grab another one, repeating until they decided on which one to give to the judge. Once all players selected a card, the judge will decide on which one is more fitting for the sentence.

Observations:

While participants later informed me that they preferred playing the game in the “traditional” way, with a hand of cards for each player, they did seem to enjoy the activity. Furthermore, this variant introduced new ways of playing. Participants first tried looking at all cards before choosing, but soon realised that if they took too long, other players would grab the card they wanted earlier. Thus, in the upcoming round the game was more frantic, with players picking cards without hesitation. It also led to new dynamics, where players will purposely move the cards around, situating cards they did not like closer to other players.

10.4.f Low-tech Prototype 6

Objectives:

To explore the introduction of debate mechanics in the prototype, similar to *Bad Medicine* (Hova, 2015). Debate could enhance the exploration of consensus.

Description:

CJ card game. Made with pen and paper.

Same cards than low-tech prototype 3, but different ruleset:

Introducing a “debate” time. Instead of giving their cards anonymously to the “judge” of each round, players will show their selected card to everyone, and then proceed to argue, within a set time, why they choose that card and why they think it should be the winner.

Observations:

The outcome was mixed. On one hand, half of the participants enjoyed the debate. The most eloquent participants crafted arguments around their choices. Some were based on the adequacy of the noun, and others on its inadequacy and the humorous result. But the other half of the participants could not engage so easily with the activity. They struggled creating arguments and justifying their choices. This also resulted in an extension of the playing time that dragged a single round to about 15 minutes. At the end, this approach was discarded. While adding debate could be positive, I did not want to sacrifice accessibility and time.

10.4.g Low-tech Prototype 7

Objectives:

To test how historical themed cards will function with a “voting” system.

Description:

CJ card game. Made with pen and paper.

Same cards than low-tech prototype 3, but with the rulesets from low-tech prototype 2:

Players did not have cards in their hands. Each round, a “sentence” card was randomly shown, and several “noun” cards were revealed on the table. Players will then vote for which “noun” card they considered more fitting for that sentence. The most voted card wins, and players were granted points for picking the winner card.

Observations:

The reception of this mode was positive. In this case participants struggled when picking a card, wondering if they had to choose the most adequate or the most humorous option. This doubt was not present in low-tech prototype 2, that had the same rules with non-historical themed cards. This hinted at the idea that historical theming was behind this tension and created an argument to keep exploring this approach.

10.5 Digital Prototypes

10.5.a Digital Prototype 1

Objective: Create a customizable virtual environment, attempting to combine space exploration with CJ.

Description:

Digital prototype made with Unity (Unity Technologies, 2005). 2.5D expandable and customizable environment that players can navigate through horizontal 2D movements and interact with objects along the way. No further rules were implemented, just different types of environments, movements, and interactable objects.

Observation:

Technical and time limitations forced to think about a 2D video game. However, the idea of using a 3D environment but restricting movement to a 2D plane allowed for a more aesthetically pleasing experience.

Experimenting with the creation of this virtual space informed new mechanics for CJ. Two ideas emerged: (1) Finding words around the environment and “delivering” them somewhere; and (2) prompting “sentences” to players during their exploration and having them finding “nouns” to complete the sentences on the go. Both concepts could have worked well, but it was not clear at the time how the interaction with other players will work in these approaches. Due time, these ideas were scraped.

A division between two parts with distinctive mechanics and control schemes was set: First, an “exploration stage” for engaging with a recreated virtual environment and collecting “nouns” (exploring “subjectivity”); and a “completion stage”, for completing “sentences” with the previously selected “nouns” (exploring “interpretation” and “consensus”) representing virtually the CJ card games.

10.5.b Digital Prototype 2

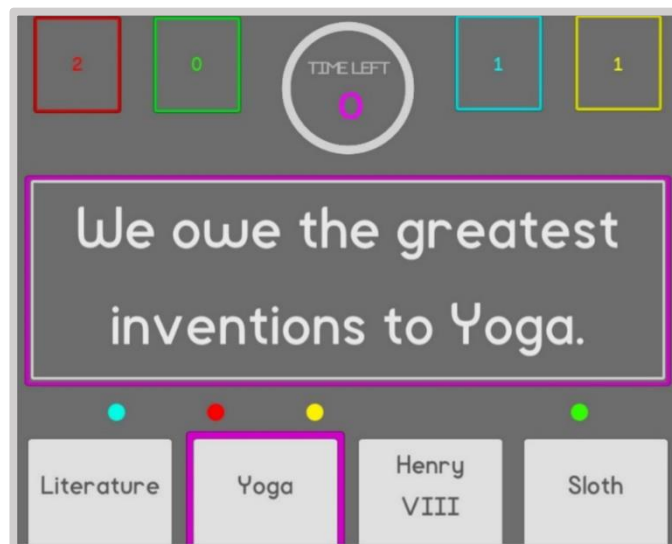
Objective: To recreate the low-tech prototype 7 into a digital prototype.

Description:

Digital prototype made with Unity (Unity Technologies, 2005). Followed the same rulesets as the low-tech prototype 7. Game includes multiple rounds. Each round, players are offered an incomplete sentence and four nouns, extracted from the low-tech prototype 7 card decks. Players have to place their token over the noun in order to vote for it. The most voted noun will complete the sentence, and players that voted for it are granted points. The game ends when a player reaches seven points. Contrary to the low-tech prototype 7, this digital version includes an automatic scoring system and a timer that limits the time for each round. The prototype also features in-game instructions shared via a small set of interactive cutscenes.

Observation:

I purposely hid the voting mechanic from the instructions, in order to see if players will identify it and how they will react. Mixed opinions in this regard, as players did not enjoy having hidden objectives. Even after knowing about the voting mechanic they did not engage with debates. Players also asked about the motivation behind picking these nouns, arguing that there was a need for a setting or a story behind the prototype. Also, changes to the timer and interface were needed to create a better experience.



10.6 Final Prototype

10.6.a *Time Historians*

Time Historians is a local-multiplayer (1-4 players) creative judgement video game, where you have to explore a historical setting and create historical narratives together. Travel to Ancient Egypt, collect relevant information, and then vote to decide which data will be used in completing the historical records.

Time Historians, is accessible at: <https://manuacruz.itch.io/time-historians>

There are multiple playable versions of the prototype accessible online:

- Browser version: The latest version can be played on the internet browser, without downloading any files and in any type of computer and browser. It is optimised for being played with PS4 controllers. However, it can also be played with the keyboard (input keys are specified in the website).
- Downloadable version (recommended): The latest version is also available for download. The game can then be played offline and with custom manual input preferences. It allows to change button inputs for any type of controllers and keyboard preferences.
- Evaluation version: The version 2.2b of the prototype, used in the evaluation activity detailed in chapter 7, is also available for download.

Time Historians by Manuel Alejandro Cruz Martínez is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

10.6.b Version Log

Alfa 1.00

- Added *Part 1* (from scratch, using the previous experience).

Only a platform to move around.

Added inventory. Shows amount of player's selected nouns.

- Added *Part 2* (using digital prototype 2 code).

New interface design.

- Added functions to connect *part 1* and *part 2*.

Using static variables set in a separated script, not assigned to a scene.

MISSING code for restarting values.

Alfa 1.01 – 1.02

- Testing types of camera:

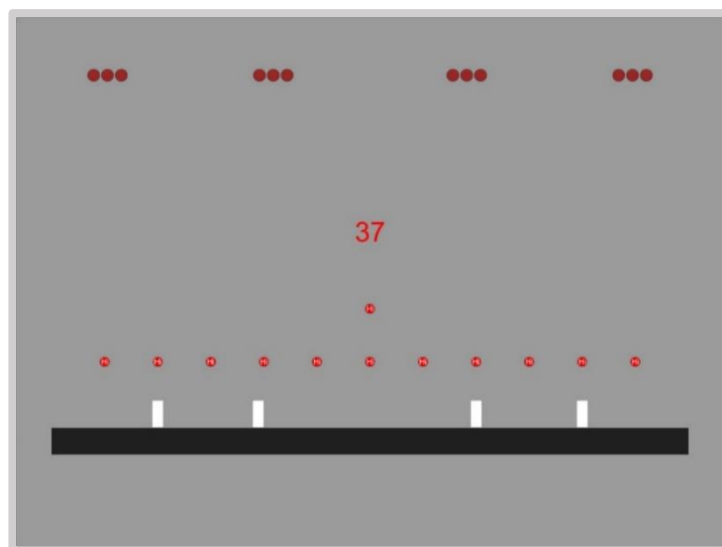
1.01 One camera for all players. Negative feedback.

1.02 Split screen. Positive feedback

- Testing collision:

1.01: No collision between players. Mixed feedback

1.02: Collision between players. Mixed feedback



Alfa 1.10*Part 1*

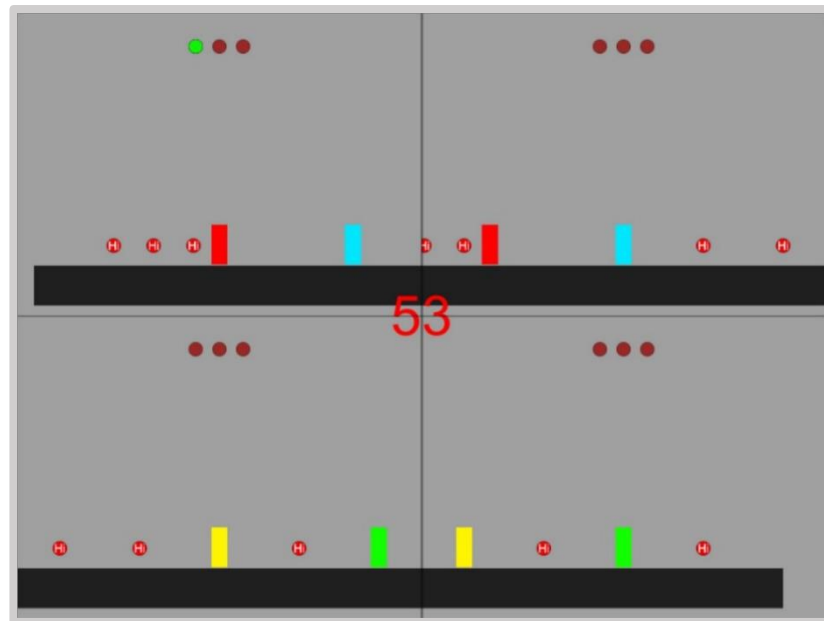
- Minor interfaces changes
- Added players' sprites
- Added object interactions through button press.

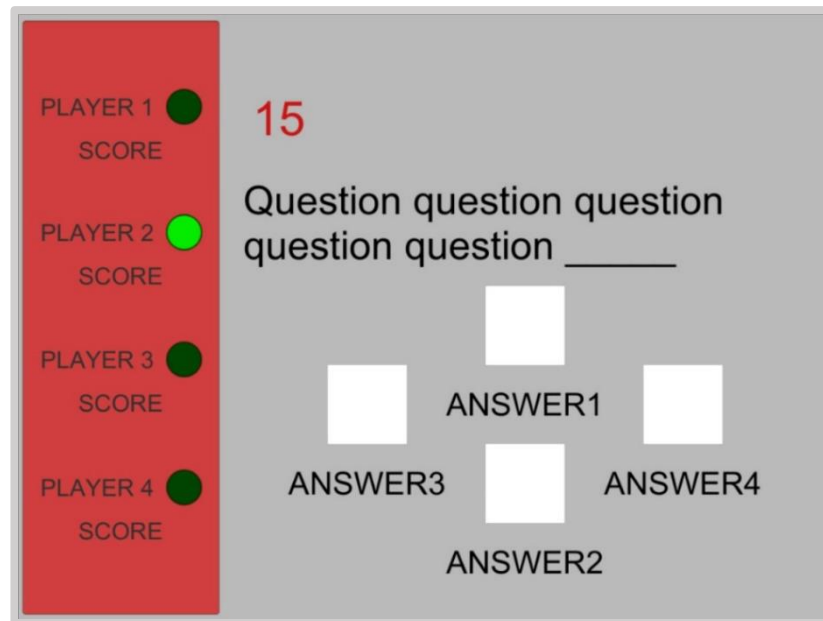
Part 2

- Added images above “nouns” for button indications.
- Added functionality to read data from text file.
- Added code to restart values after restart.

Added Part 3

- texts showcasing filled sentences at the end of the game.
- Restarts game once all sentences are shown





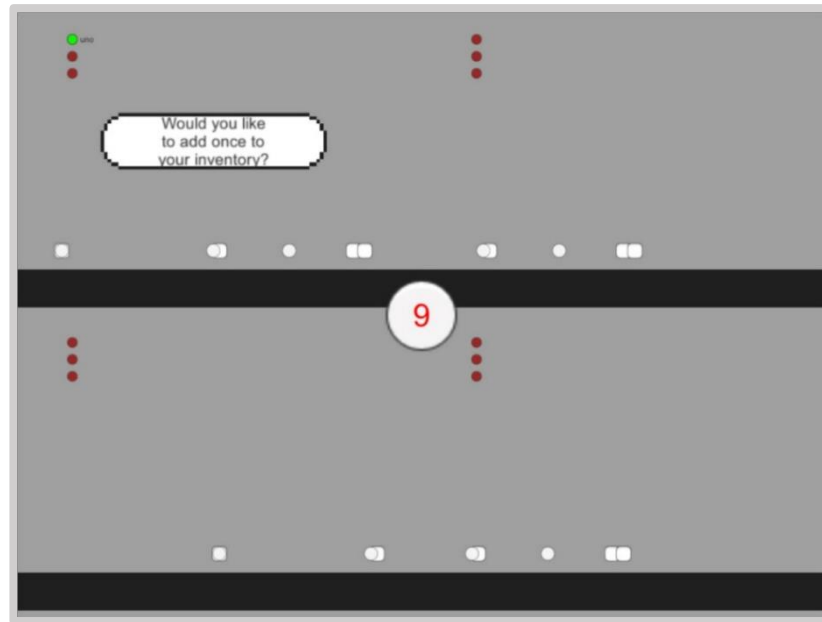
Alfa 1.20

- Rewritten scripts (cleaner versions)
- Minor interface changes
- Changes in data carrying between parts
- Changes in object interactions, attempts of a dialogue system

Alfa 1.30

Cleaner version:

- Added debug reports.
- Reduced amount of scripts
- Removed/changed unpractical functions.
- Minor interface changes.
- Added dialogue system (partially implemented)



Alfa 1.4

- Added start menu
- Added opening cutscene (partially implemented)

Part 1

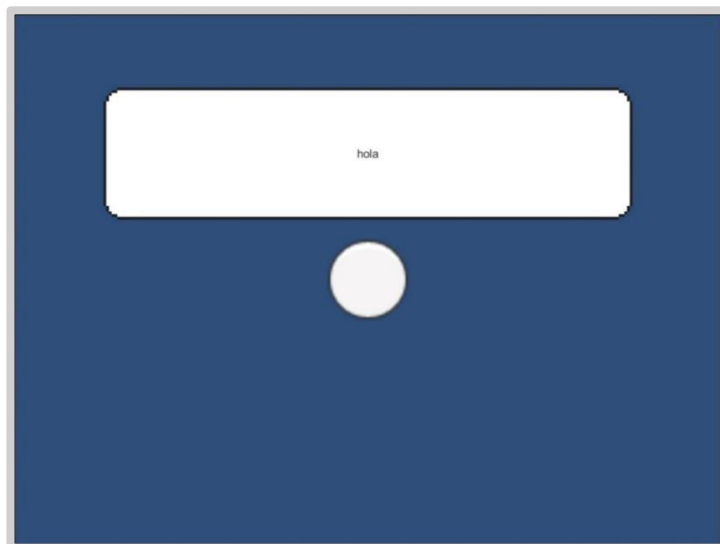
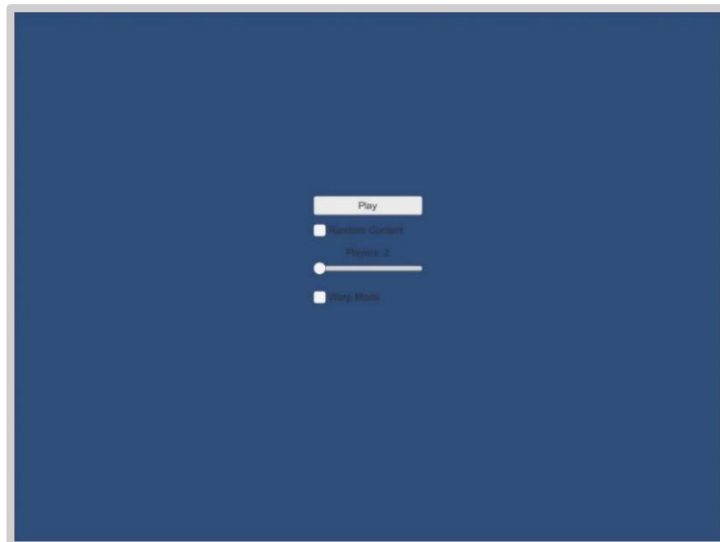
- Added text display for inventory
- Completed dialogue system: with answering options
- Added dynamic split screen (changes with number of players).
- Testing environments:

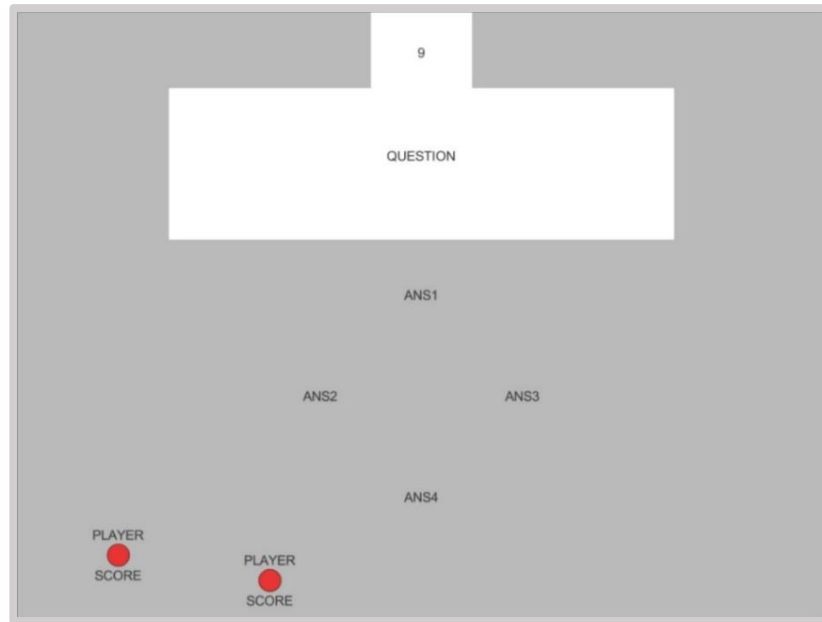
1.41 Single strip of land. Long and with barrier at the end.

1.42 Multiple strips of land. Shorter, player transported to the next strip upon reaching the edge.

Part 2

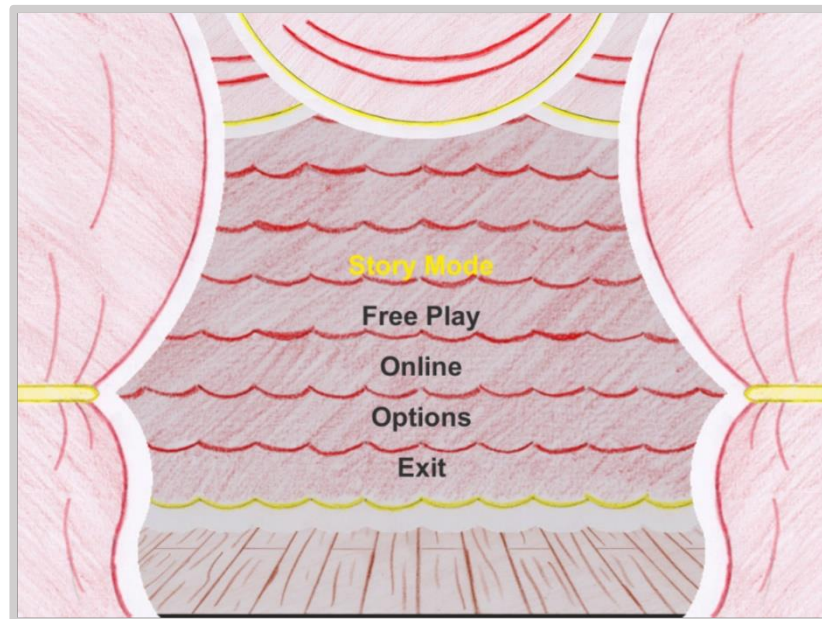
- Drastically changed the interface.
- Added players' avatars.

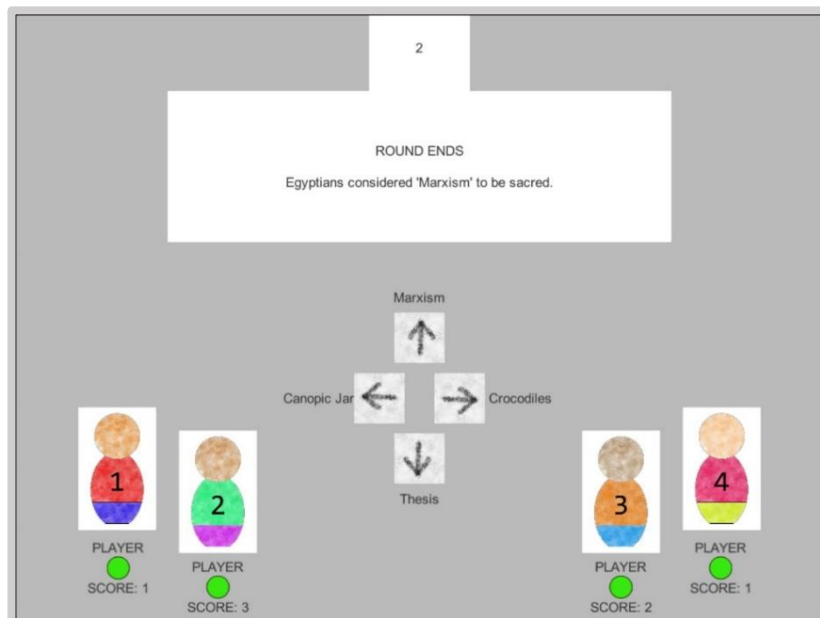
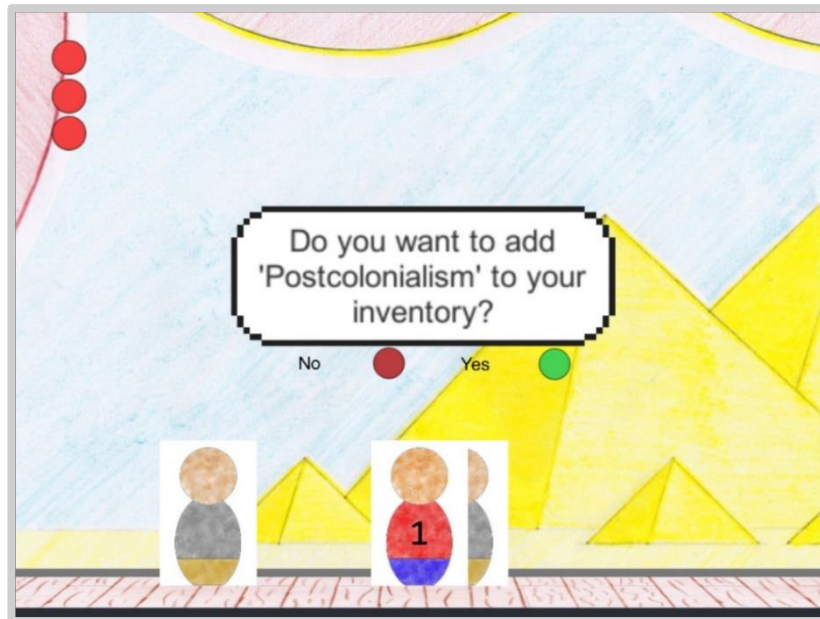




Beta 2.0

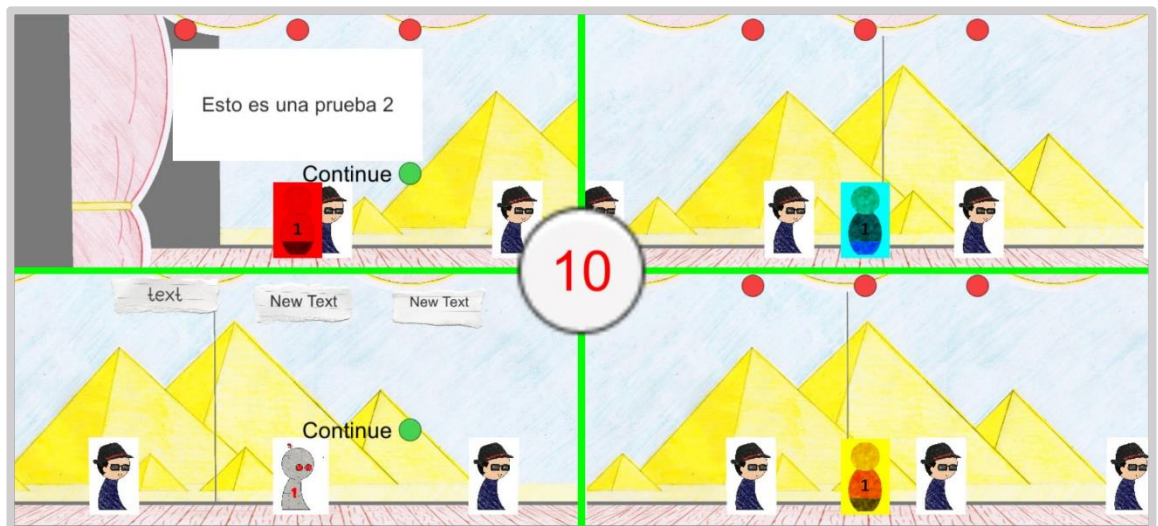
- Added sprites for foreground and background (partially implemented)
- Added sprites and details for start menu.





Beta 2.10

- Added menu animations
- Added sprites for NPCs (placeholders)
- Added 3D effect to background images
- Added NPCs' animations
- Added inventory sprites



Beta 2.2

- Added animations between scenes (fade in/out, and curtain).
- Added Opening and Ending cutscene with animations (only images. Missing voice/text).
- Added NPCs' sprites.
- Added final backgrounds.
- Added new sound effect for player interactions and menu.

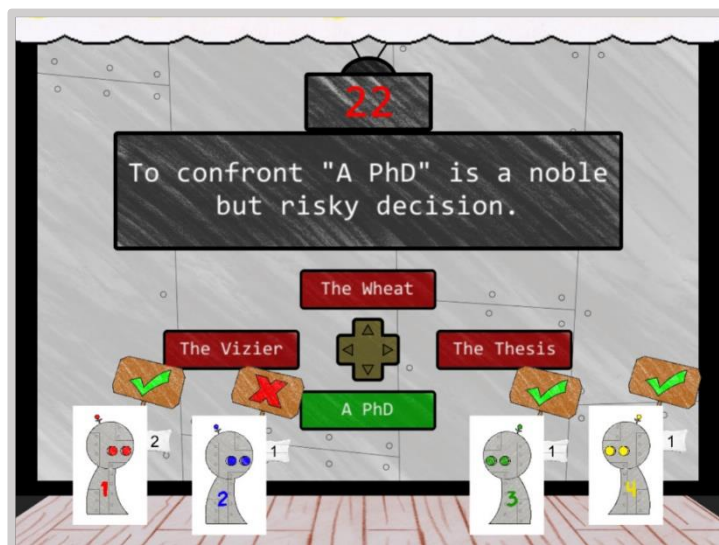
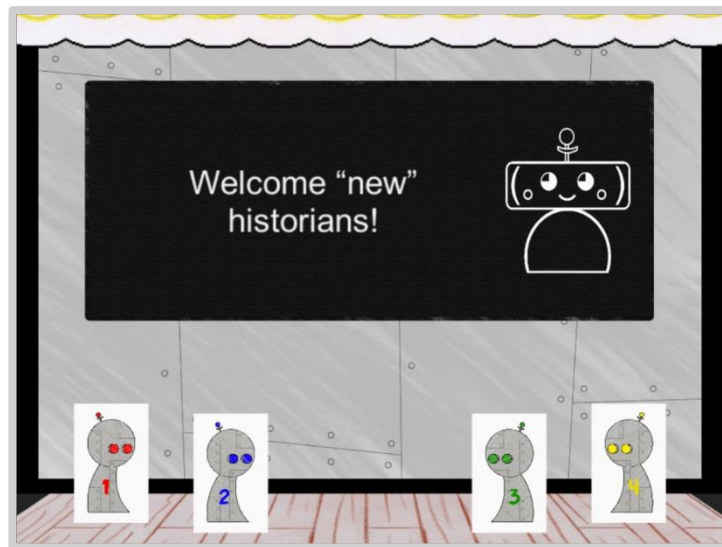


Beta 2.30

- Added new cutscene scenes (instructions)
- Added cutscene texts and sound effects.
- Changed animations in *part 1* and *part 2*

Beta 2.31 (Evaluation version)

- Minor changes to reduce timers (between scenes, dialogues and rounds)
- Minor changes to reduce the cutscene texts.



10.6.c Story

Opening cutscene text:

The year 2589

The long-forgotten discipline of history might be seeing a new future!

In their final attempt to survive, last living historians digitalised all human heritage,

saving it in a poorly chose data format that have since got corrupted.

But it seems that the Entertainment Industry have seen a potential in this ancient discipline

as they have created the “School of Entertainment and New History”!

Using the most advanced time traveling technology in the market,

our new historians can be anywhere in the past.

Gathering knowledge, completing their predecessors work

and coming up with cool brand-new ideas for video games.

Instructions cutscene part 1:

Welcome “new” historians!

It’s very brave of you to choose such a worthless profession.

Your goal here is to complete our corrupt historical records.

Your predecessors screwed it up, and now we are missing a ton of data.

Thankfully, with the time machine we can travel to the “the past”.

You need to go there, talk with the people, and get some more data.

Here is a quick tutorial, in case you don’t know how to use a controller.

Move around using the directional pad.

Interact with others using X and O

You only have a couple minutes to explore the surroundings

And you can only carry so much data, so try to choose wisely.

After exploring, you’ll be brought back in time

You will have to match your findings with the existing records.

Now, one more thing. Let's see how you look!

Hmmm... I could add a character creation screen, and let you choose a disguise...

But there is no budget or time left, so your robotic face will have to do it.

OK! You are ready to go!

Please, close your eyes while we send you back in time!

(I am talking to you behind the controller)

Enjoy your “trip”!

Instructions cutscene part 2:

Well look at that!

You have collected a bunch of useless knowledge!

Now it is time for the real job!

You need to fill the gaps in our corrupted records.

I will prompt incomplete sentences on this window

And the data you have collected will appear below.

You will have to vote which data might fit better on each sentence.

Just use the directional pad to cast your vote.

I will keep the most voted data and add it to the incomplete sentence.

Consensus is key. I will trust in your criteria as a group.

But just to spice things a little bit, I will be giving points based on your performance.

So, let the best historian win!

Get ready! Go!

Instructions cutscene part 3:

FINISH!

And the winner is...

Nobody!

Points were useless to begin with.

But look at how many non-sensical sentences you have made!

Now we are going to use these records to make an amazing new video game.

Of course, we are not going to credit any of you for your work.

Participating in this might hinder your future career, you know?

(And this way we do not need to pay you)

And besides, who told you historians making video games was a good idea to begin with?

But do not worry, you can keep working here as a historian.

So, why don't you enjoy the uncredited fruits of your work?

And get ready for the next round

See you soon!

Ending cutscene:

Introducing a brand-new video game!

Explore the legendary "Ancient Egypt"

where _____.

and _____.

Learn stuff from the past with the latest historical research!

like how _____.

or how _____.

And embrace this new adventure!

Coming soon to your favourite platform!

(No historians were harmed in the making of this game)

10.6.d Content Bundles Samples

NOUN	The Thesis
SENTENCE	Completing _____ sure doesn't take more than 3 years...
DIALOGUE 1	Sorry I can't talk right now. I'm trying to work on my thesis, can't you see?
DIALOGUE 2	Why did I get into this?

NOUN	The Video game
SENTENCE	The predominant artistic format of this period is _____.
DIALOGUE 1	Some people say that we live inside a video game. As if in the future video games could be more realistic than reality or something. ¿Can you believe that?
DIALOGUE 2	Well, if this is a video game... it sucks.

NOUN	A PhD
SENTENCE	To confront _____ is a noble but risky decision.
DIALOGUE 1	It's dangerous to go alone, take this.
DIALOGUE 2	It's fake, but you should have seen your happy face for a moment.

NOUN	A Crocodile
SENTENCE	About Khety I, it is said that he went mad, and was eaten by_____.
DIALOGUE 1	Watch out when you walk by the river, it's full of crocodiles! Nile river crocodiles and enormous! Like many feet long! And they can run really fast! Like, like, 60 mph! Or more!
DIALOGUE 2	Trust me, be careful with crocodiles.

NOUN	The Papyrus
SENTENCE	_____ was first created in Egypt around the fourth millennium BCE.
DIALOGUE 1	Come by traveller! I'm the most popular merchant in historical Video Games! I'm selling this super high-quality papyrus with my research written on it! Do you want one?
DIALOGUE 2	Of course, I'm not getting a dime out of this publication. What? you thought academia was better in the past? HA!

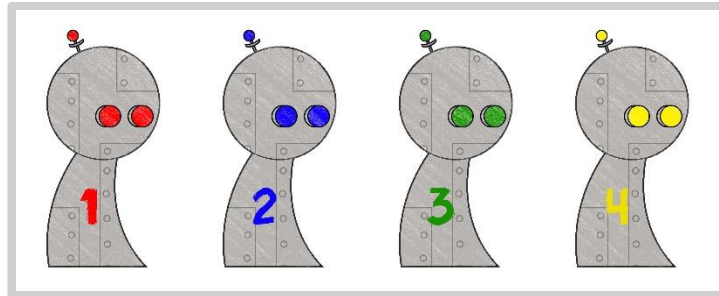
NOUN	The Hieroglyphs
SENTENCE	The decipherment of _____ would only be solved in the 1820s.
DIALOGUE 1	Hi, I'm a scribe apprentice. My favourite hieroglyph is one that looks like a cow's guts. But it's pretty hard to draw! Here, I'll draw one for you!
DIALOGUE 2	(You look at the drawing) (It doesn't look like cow's guts)

NOUN	Postcolonialism
SENTENCE	_____ provokes acute questions on traditional periodisation models.
DIALOGUE 1	Uh? Egypt? No, no, we call this land “kmt”. The name Egypt is Greek, that’s how THEY called us. For someone coming from the future, you don’t know much about postcolonialism...
DIALOGUE 2	Well, now you know.

NOUN	Archaeology
SENTENCE	Most of Ancient Egypt’s past is known thanks to _____.
DIALOGUE 1	History and archaeology are very similar. Some might even say it's just a solvable methodological difference. But let's be honest, is cooler to call yourself an archaeologist.
DIALOGUE 2	And who knows, maybe you can do archaeology of games someday!

10.6.e Examples of Other Assets

Player Avatars

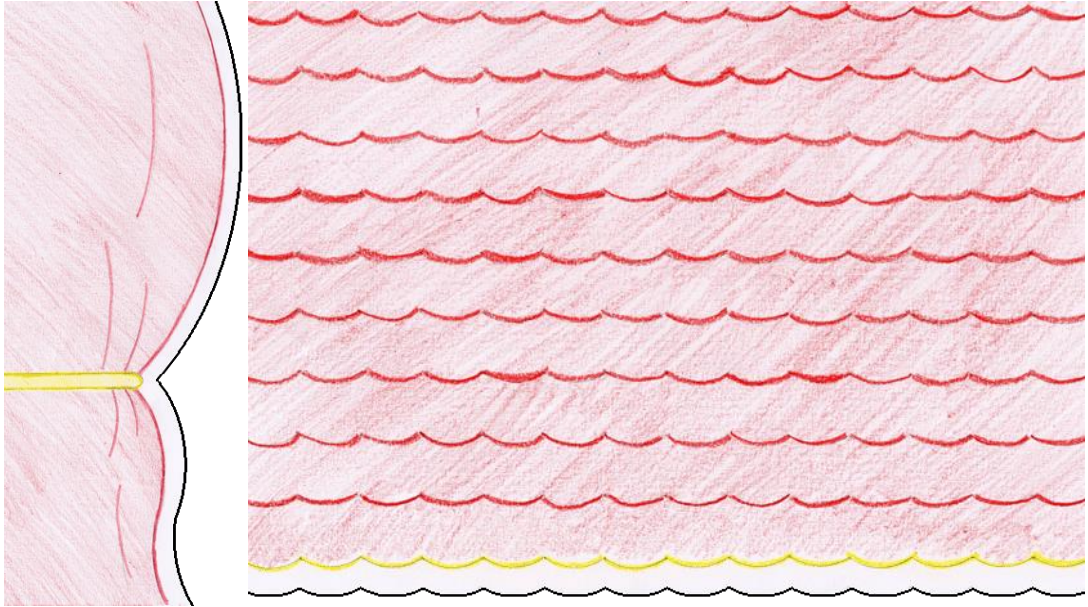


NPCs

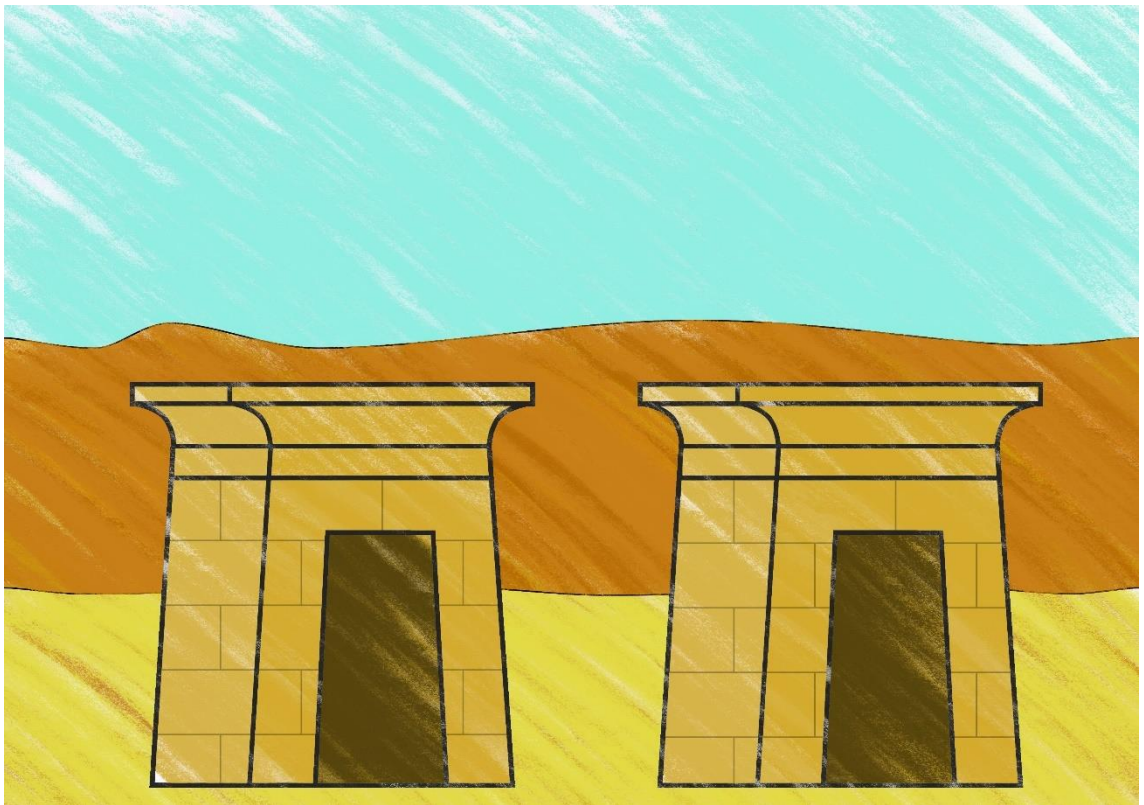


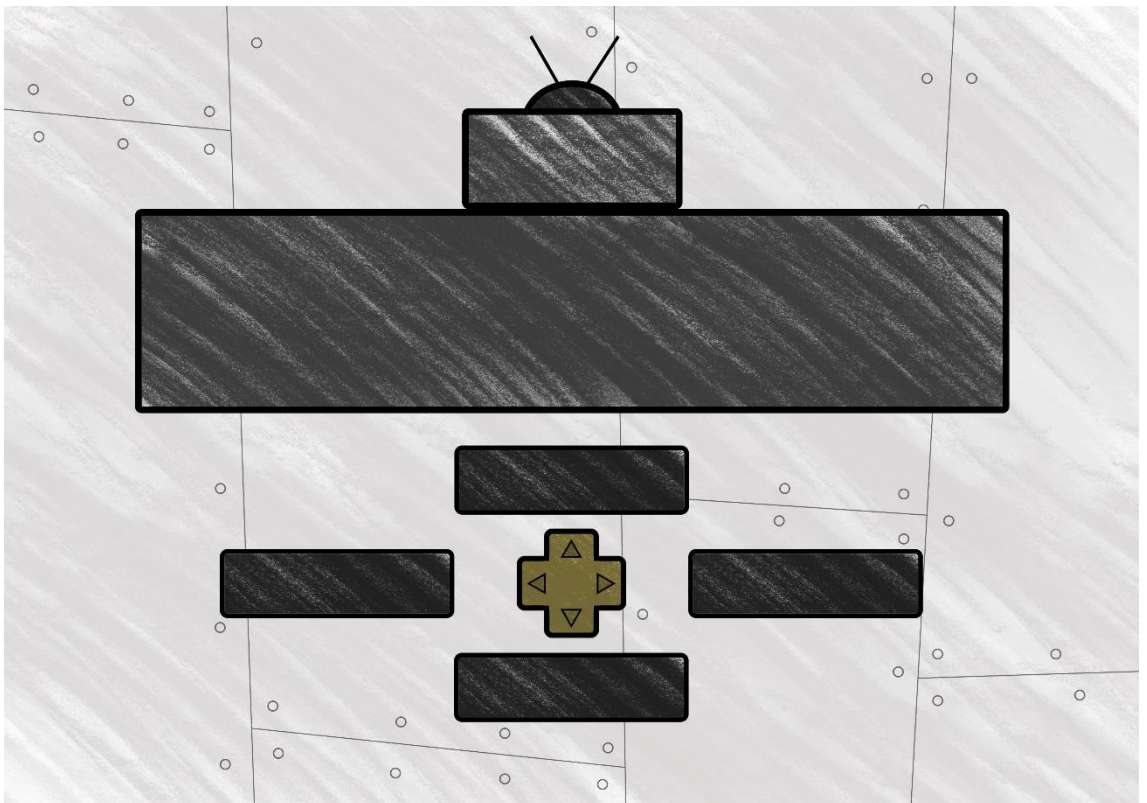
Interface and foreground assets





Background images





10.7 Evaluation Documentation

10.7.a Information Sheet

Research Project Information Sheet

STUDY TITLE

Historical video game prototype evaluation.

INVITATION PARAGRAPH

I would like to invite you to take part in a research study. Before you decide whether or not to take part, you need to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Ask questions if anything you read is not clear or you would like more information. Take your time to decide whether or not to take part.

WHAT IS THE PURPOSE OF THE STUDY?

This study is part of PhD research focused on exploring the potential of video games to engage with deconstructing history and promoting critical historiographical debates. The goal of this study is to analyse how students engage with history and how a video game prototype might encourage further epistemological debates. It aims to evaluate how the prototype, the approach, and the medium are able to engage with deconstructing history and promoting critical debates about the discipline. The methodology used will include semi-structured group interviews and play testing sessions. All the data will be collected and analysed for the unique purpose of this research. The benefits of this project are to strengthen knowledge and understanding of the capabilities of historical video games as historical devices and promote reflection on how to include this medium in historical practice.

DO I HAVE TO TAKE PART?

Your participation is absolutely voluntary. I believe your participation can make an important contribution to the research. However, it is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part, you can withdraw at any time and without giving reason.

WHAT WILL HAPPEN TO ME IF I TAKE PART?

If you decide to participate in the research, I will ask you to read this information sheet and sign the consent form. Once the consent form is signed I will conduct a short 10-15-minute semi-structured group interview with a maximum of other three participants in which I will ask you a few questions and you will have the opportunity to ask any questions as well. Afterwards, you will be given a video game to play with the rest of participants, for about 30 minutes. Finally, I will conduct another short 10-15-minute semi-structured group interview. In total, the study will take about an hour.

WHAT ARE THE POSSIBLE DISADVANTAGES AND RISKS OF TAKING PART?

All information provided by you will be kept confidential at all times. All responses to the interview questions and information provided by you will be anonymised i.e. no personal details relating to you will be recorded anywhere. Only the researcher and the supervision team will have access to the information you provide.

WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?

Whilst there may be no direct benefits to your participation in this study, you will be able to engage directly with a doctoral research in history and video games, giving you a glimpse of the topics and possibilities open for further research and offering you a general sense of how active research with cultural media might operate. In addition, the information you provide will contribute to the future development of education and history.

WILL MY INFORMATION IN THIS STUDY BE KEPT CONFIDENTIAL?

All information you provide to us will be kept confidential. Only the researcher and the supervision team will have access to it. Under no circumstances will identifiable responses be provided to any other third party. Information emanating from the evaluation will only be made public in a completely unattributable format or at the aggregate level in order to ensure that no participant will be identified. You can also withdraw at any time without giving reason, and you can ask for your recording to be destroyed and your data to be removed from the project until it is no longer practical to do so.

WHAT WILL HAPPEN TO THE RESULTS OF THE RESEARCH STUDY?

All information provided by you will be stored anonymously on a computer with analysis of the information obtained by the researcher. The information provided might be anonymously referred in some chapters of the final doctoral thesis. After the project is complete, I will present this thesis to a panel of assessors at the university and a wider audience of peers and colleagues. You will be given the option to have a virtual copy of it, and to be informed about any paper of conference directly related to this doctoral research, as well as a copy of the historical video game prototype. Additionally, a digital version of the video game prototype will be available online for free and public access to anyone, with a Creative Commons license (Attribution-NonCommercial-NoDerivatives 4.0 International) that will prevent any commercial uses of the prototype or derivative software.

WHO IS ORGANISING AND FUNDING THE RESEARCH?

The research project is being conducted by Manuel Alejandro Cruz, PhD student of Education, at the School of Education at University of Sussex, and it is being funded by Sussex Humanities Lab.

DATE

10.7.b Consent Form

Consent Form for Project Participants

PROJECT TITLE: Historical video game prototype evaluation

Project Approval

Reference: ER/MC596/5

I agree to take part in the above University of Sussex research project. I have had the project explained to me and I have read and understood the Information Sheet, which I may keep for records. I understand that agreeing to take part means that I am willing to:

- Be interviewed by the researcher about my personal thoughts on history, historiography, and video games.
- Play test a historical video game prototype with other participants.
- Participate in the group debates that might prompt from the interview or the play sessions.
- Allow the researcher to collect and analyse the data from this evaluation and use it for completing the research and evaluation of the video game prototype.
- Allow the interviews, play session, and gameplay to be video and audio taped.
- Make myself available for a further interview should that be required.

I understand that any information I provide is confidential, and that no information that I disclose will lead to the identification of any individual in the reports on the project, either by the researcher or by any other party. I understand that I can request a copy of the transcript of data concerning me for my approval before being included in the write up of the research.

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any time without giving reason. I can ask for my recording to be destroyed and for my data to be removed from the project, until it is no longer practical to do so.

I consent to the processing of my personal information for the purposes of this research study. I understand that such information will be treated as strictly confidential and handled in accordance with the Data Protection Act 1998.

Name: _____

Signature: _____

Date: _____

10.7.c Acknowledgment Form

Optional Consent for Acknowledgement

I consent to be credited, by a name or a pseudonym of my preference, in the final video game prototype that this research will lead to.

I understand that the final video game prototype will be available online for free and public access to anyone, with a Creative Commons license (Attribution NonCommercial-NoDerivatives 4.0 International) that will prevent any commercial uses of the prototype or derivative software.

I understand that my consent for being credited is voluntary, that I can choose not to be credited at any stage of the project without giving reason. I can ask for my name or pseudonym to be excluded from the prototype until it is no longer practical to do so.

Name or pseudonym to
display: _____

Name: _____

Signature: _____

Date: _____

10.7.dPre-play Survey

Pre-play Survey

Before playing the game, please take a couple minutes to answer this survey.

1. What is your academic or professional background?

<i>University Lecturer</i>	<input type="checkbox"/>	<i>Undergraduate</i>	<input type="checkbox"/>	<i>Postgraduate</i>	<input type="checkbox"/>
		<i>Student</i>		<i>Student</i>	
<i>Secondary School Teacher</i>	<input type="checkbox"/>	<i>Former University Student</i>	<input type="checkbox"/>	<i>Other:</i>	<input type="checkbox"/>

2. What academic subject do you study and/or teach?

3. Please rate your familiarity with the following subjects

	<i>None</i>	<i>Poor</i>	<i>Average</i>	<i>Good</i>	<i>Excellent</i>
a. Video Games	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. History	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Historical Themed Video Games	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Historiography	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. What motivated you to participate in this activity?

10.7.e Post-play Survey

Post-play Survey

After playing the game, please take a couple minutes to answer this survey.

1. Rate the following statements based on your experience playing the prototype.

	<i>Do Not Know</i>	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
a. I enjoyed playing the game.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. I found the controls easy to understand and use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I clearly understood what the objectives were to complete the game.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>During the first part of the game...</i>					
d. I found the dialogues offered by non-playable characters to be amusing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. I dedicated time to explore the scenery.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I carefully chose to keep the data that I found most interesting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>During the second part of the game...</i>					
g. It was easy for me to choose fitting data to fill each sentence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. I tried choosing the most appropriate data to the historical period	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. I often couldn't find the data I would like for filling the sentence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<i>Do Not Know</i>	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>
j. I found that players often debated about which data might be more fitting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. I think the humour and tone were too unsettling for the historical theme.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. How would you describe the prototype's engagement with history?

3. Any final thoughts, comments, or feedback on the game you played?

10.8 Evaluation Data

10.8.a Participants Background

<i>Participants</i>	Gender	Background	Area
<i>PA1</i>	Man	PGCE History	History
<i>PB1</i>	Woman	University Lecturer	Education
<i>PC1</i>	Man	University Lecturer	History
<i>PD1</i>	Man	PGCE History	History
<i>PA2</i>	Man	Postgraduate Student	Game Design
<i>PB2</i>	Man	PGCE History	History
<i>PC2</i>	Woman	PGCE History	History
<i>PD2</i>	Woman	PGCE History	History
<i>PE2</i>	Woman	PGCE History	History
<i>PA3</i>	Woman	University Lecturer	Game Design Product Design
<i>PB3</i>	Man	Former PGCE History Secondary School Teacher	History
<i>PC3</i>	Man	University Lecturer Secondary School Teacher	Classics
<i>PD3</i>	Man	Undergraduate Student	Biochemistry

10.8.b Partial Transcription Example

Evaluation 1 – Group 1 – Playing *Time Historians*

[ACT 2 starts]

[Some players showed hesitation with identifying controllers and avatars on the screen]

PD1 What?

PA1 Bottom left

R You know which one are you, right? It is the colour in your...

PB1 I am two

PC1 I think I am...

R It is the first one

PC1 Am I it?

R The red one, yeah

PC1 Ok

[Participants talking about unknown terms from the data]

PD1 Is that what you think [*obscure*] will be used?

PB1 Vizier... vizier... maybe [*obscure*] was it?

PD1 Maybe? I do not know!

PA1 A Vizier was not like a... a vizier was like a VM, like a... in the Persian Empire...

PD2 Yeah, it is like the, like a [*obscure*] is not it?

PA1 Is the bad guy in the Prince of Persia games.

[Laughs]

PB2 And in Aladdin

PA1 Oh is that the Vizier? Jaffar!

(...)

PA1 what is an Ibis?

PC2 Ooh... it is a god? I think

PA1 Is it one of the gods?

PB2 Is like an Egyptian god

PA1 Is it a good god?

PC2 I cannot remember... (be)cause that is why they [*obscure*] Ibis hotel

PD2 [*obscure*] is Nick's hotel?

PC2 Yeah [Laughs] it is Nick, so it is got to be something grant

[Participants comment on a grammatical mistake on the game...]

PC2 [*obscure*] is right?

PD2 I have got "an Ibi"

PC2 It is "an Ibi", (be)cause it is a single consonant

PA1 Yeah

[ACT 2 ends – Instructions for ACT 3 starts]

[Participants trying to make sense of the game]

PA1 Oh so this is like a gap fill...

PC2 What gap fill?

PA1 This is going to be like an interactive gap fill, right?

[ACT 3 starts]

[Participants laughed as reaction to the first sentence]

[Too obscure to translate. Two participants in the background were asking about one of the options].

PD1 (it) is [*obscure*], obviously.

PB1 No, no... Is it? I do not know.

[Participants remained in silence for the most part, only with some random comments regarding certain combinations of nouns and sentences. These comments occurred when the nouns and sentences were revealed in each round.]

PA1 "Politics is a place of fantasy"

(...)

PA1 "It could be any of those..."

(...)

PD1 "Politics"

[Interesting reaction from one participant. First, proposes a noun aloud for a certain sentence.]

PE2 Wheat...

[Then, the outcome of the voting is revealed, not showing her selected word]

PE2 Oh... Why did I say "wheat"? that is stupid...

[When one of the rounds ended with a draw, participants reacted to it]

PA1 What?!

PD1 Oh no!

PA1 Tell us the answer! [Looking at me, the researcher]

PD1 I think is the [*obscure*: wheat?], clearly.

PA1 It could like, archaeology, the [*obscure*] too, right? like...

Evaluation 1 – Group 2 – Focus group

R Did you encounter any difficulties when filling the sentences?

PB2 Well I think we picked the wrong words, so, when it came to making (sentences), some of them did not fit... It was not... none of them...

PD2 Yeah, we were making non-sense sentences.

PA2 But, I feel, is not that kind of like, the point of the game... To, sort of, force you into making non-sense sentences, or is it not?

PB2 I do not know... yeah.

PC2 The point of the game was to... to... make, complete sentences... so you could complete the archive... for the future people?

PB2 Yeah.

PA2 So, so there is a sort of, like, team objective where you should, like, collect the right words in the first place but then, if you do not get them then you are sort of doing...

PD2 Yeah

PB2 But also, one of them was like “the economic... the power of the family could be decided by the ‘something’”... and it was “pyramid”... but we did not pick that word, so also, just like... we could have chosen one of... for those... yeah... I mean it was our mistake [Laughs]

PD2 Yeah... so, we should have worked as a team rather than work, sort of, randomly connecting words.

PC2 individually.

PB2 yeah.

R And what do you think the game tells about history?

PC2 History is built by consensus

R Right

PB2 it is true

PA2 You know, as long as it sounds right, then often that is what people will go with, especially if they do not know any better, I guess? Yeah.

PE2 Um-hm [affirmation]

PB2 That there is a process as well, that you have to actually learn, inquire about things and find out.

PE2 Find things out,

PB2 Um-hm [affirmation]

[After a brief silence]

PC2 [Laughing] Sort of feels like that there is an answer you are looking for there

R I was just waiting to see if everyone talked. (...) Do you think this teaches anything about history?

PB2 That is true, you could like... hmmm

PE2 Yes, you learn about the Nile and...

[Other participants look at her with doubt]

PE2 You do! (be)cause, they say the Nile is fertile...

PC2 are you talking about history, like, specific facts about history or the way in which...

PD2 substantive or disciplinary.

PC2 like... history is constructed... when which we...

R I do not know.

PC2 [Laughs]

PD2 You learn substantive content; you learn shit about Ancient Egypt... right?

PA2 I think... you have it both is not it?

PE2 The bit at the end? Yeah.

PC2 Well...

PB2 Was the... if the path has different levels, would you have, like, an ancient Egypt, then ancient Rome, or something like that, is that... would that be the...

R Well, part of the idea, that is why you have this crayon aesthetics, is that people will be able to draw their own backgrounds? and their own characters? So, you can do a level in Rome and you can prompt your sentences and your words... that was part of the idea... but... Egypt was just one option to test it out

PA2 yeah, well, I suppose it will be quite easy to just implement different time frames and stuff like that...

PE2 Would you then build up a historical knowledge that you are learning about different periods?

R Exactly, yeah

PC2 What age group is this being pitch at?

R Not really a specific age group, it is more of an experiment to be honest.

PC2 Okay, okay

R But I am wondering if it teaches... yeah, if what you were saying, it teaches something beyond content.

PD2 hmmm yes, I think... yeah.

PA2 It will be certainly interesting if, like... there was some way of knowing the, like... the right answer there, but everyone chose the wrong answer, knowing that everyone was wrong, but that became true... you know... that will be interesting? I guess the problem is... the potential answers will have to sound a lot more... like, believable in the first place... I do not know.

PC2 Probably have [*obscure*] been just sort of wandering around and talking to sort of random NPCs and getting information from them, could you get, could your character go and get information from different sources... So, I know that makes it a bit more complicated to maybe code, but, if you are talking about the way that we constructed historical narrative, I do not know... too much video game I guess...

PE2 Hmmm yeah.

PB2 Or there could be something like they could go and look, look at some hieroglyphs...

PC2 yes

PE2 yes

PB2 so they get some information from that rather than from a person who tells you... something like that.

PC2 yes

PE2 yes

PA2 I mean that will essentially just be the same thing but with the different like... a different image instead of a person... yes.

PD2 Yes, but if we think... if we are thinking about, if we think historically... yes.

PC2 but that... but that... any kind of... yes.

PA2 yes, yes, no, no, that is true... And then... would you bring in, like... validity into that? Like, will some of them will obviously false? or...

PD2 I suppose it depends, if you are, if it is aimed at, like, six years old, obviously you are just going to, like, 'oh we are going to look at...', but maybe if it is for slightly older children you will start maybe looking at interpretations and... yeah.

PA2 Yeah, it is like, teaching them about, like, determining whether or not something is believable, you know, like, should we trust this source of not? you know, you know, obviously, like... legitimate hieroglyphs, you know, that is something you could trust, but if it is just, like, some geezer... who is a bit odd

PD2 [Laughs] Yeah

R But I wonder... I wonder... do you... while you were playing... do you think... the exploration part takes place in the past?

PC2 No...

PB2 I mean, we, we said like... the... the people did not seem like they were part of the past

PC2 Hmmm you see, you see the people...

PD2 So, did it give us a sense of period? is that what you are asking?

R Yes

PD2 I would not have known it was ancient Egypt unless...

PC2 Um-hm [affirmation]

PB2 There were some pyramids in the background, were not they? But that was not a connection.

PD2 But that could still be the present

PB2 Yeah, it could be present, yeah...

PC2 And the people you interact with... appeared to be...

PA2 like, they look very... contemporary.

PC2 A bit hipster [Laughs]

PB2 Yeah

PA2 Which might be the point, maybe they, like... we... I interpreted it like there are supposed to be historians from, like... now? I am perceiving... I do not know; I did not quite know what that was implying.

10.8.c Pre-play Survey Answers

<i>Participant (Group)</i>	Previous Knowledge			
	a. Video games	b. History	c. Historical Video games	d. Historiography
<i>A (1)</i>	Excellent	Excellent	Excellent	Excellent
<i>B (1)</i>	Average	Excellent	Average	Good
<i>C (1)</i>	Average	Excellent	None	Good
<i>D (1)</i>	Excellent	Excellent	Excellent	Good
<i>A (2)</i>	Excellent	Poor	Average	None
<i>B (2)</i>	Good	Excellent	Average	Excellent
<i>C (2)</i>	Good	Good	Poor	Average
<i>D (2)</i>	Poor	Good	None	Good
<i>E (2)</i>	Average	Excellent	Poor	Good
<i>A (3)</i>	Excellent	Average	Average	Poor
<i>B (3)</i>	Excellent	Good	Average	Good
<i>C (3)</i>	Average	Excellent	Average	Good
<i>D (3)</i>	Excellent	Average	Good	Poor

10.8.dPost-play Survey Answers

	General			First Part		
<i>Participant (Group)</i>	a. I enjoyed playing the game	b. I found the controls easy to understand and use	c. I clearly understood what the objectives were to complete the game.	d. I found the dialogues offered by non-playable characters to be amusing.	e. I dedicated time to explore the scenery.	f. I carefully chose to keep the data that I found most interesting
<i>A (1)</i>	Agree	Strongly Agree	Agree	Agree	Strongly Disagree	Strongly Disagree
<i>B (1)</i>	Agree	Strongly Agree	Strongly Disagree	Agree	Strongly Disagree	Agree
<i>C (1)</i>	Disagree	Strongly Agree	Disagree	Agree	Disagree	Agree
<i>D (1)</i>	Agree	Agree	Disagree	Agree	Agree	Strongly Disagree
<i>A (2)</i>	Do not know	Strongly Agree	Disagree	Agree	Disagree	Disagree
<i>B (2)</i>	Agree	Agree	Disagree	Agree	Disagree	Disagree
<i>C (2)</i>	Agree	Agree	Disagree	Agree	Disagree	Strongly Disagree
<i>D (2)</i>	Agree	Agree	Disagree	Disagree	Disagree	Agree
<i>E (2)</i>	Agree	Strongly Agree	Strongly Disagree	Agree	Disagree	Disagree
<i>A (3)</i>	Do not know	Agree	Strongly Disagree	Disagree	Do not know	Do not know
<i>B (3)</i>	Strongly Disagree	Disagree	Strongly Disagree	Agree	Strongly Disagree	Strongly Disagree
<i>C (3)</i>	Agree	Agree	Disagree	Agree	Agree	Agree
<i>D (3)</i>	Do not know	Strongly Agree	Disagree	Agree	Agree	Agree

	Second Part				
<i>Participant (Group)</i>	g. It was easy for me to choose fitting data to fill each sentence.	h. I tried choosing the most appropriate data to the historical period	i. I often couldn't find the data I would like for filling the sentence.	j. I found that players often debated about which data might be more fitting.	k. I think the humour and tone were too unsettling for the historical theme.
<i>A (1)</i>	Strongly Agree	Agree	Strongly Agree	Agree	Strongly Disagree
<i>B (1)</i>	Agree	Strongly Agree	Agree	Strongly Disagree	Disagree
<i>C (1)</i>	Strongly Agree	Disagree	Disagree	Strongly Disagree	Strongly Disagree
<i>D (1)</i>	Agree	Strongly Agree	Agree	Disagree	Disagree
<i>A (2)</i>	Do not know	Agree	Agree	Disagree	Disagree
<i>B (2)</i>	Disagree	Agree	Agree	Agree	Disagree
<i>C (2)</i>	Disagree	Agree	Agree	Agree	Disagree
<i>D (2)</i>	Agree	Disagree	Agree	Agree	Disagree
<i>E (2)</i>	Disagree	Strongly Agree	Agree	Disagree	Strongly Disagree
<i>A (3)</i>	Agree	Strongly Agree	Strongly Agree	Strongly Disagree	Do not know
<i>B (3)</i>	Agree	Agree	Do not know	Disagree	Strongly Disagree
<i>C (3)</i>	Agree	Agree	Strongly Disagree	Disagree	Disagree
<i>D (3)</i>	Agree	Disagree	Disagree	Strongly Disagree	Strongly Disagree